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Gly Gly Ser Lys Lys Ser Leu Asp Leu Thr Gly Pro Leu Leu Leu Gly		990
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Ile Val Ile Ser Val Val Arg Leu Asp Lys Gly Asn Phe Ala Gly Ala		
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Lys Leu Pro Arg Tyr Glu Ala Leu Arg Gly Glu Gln Pro Pro Asp Leu		
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Glu Thr Thr Val Ile Leu Pro Glu Ser Val Phe Arg Glu Thr Pro Pro		1680
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Val Val Arg Pro Ala Gly Pro Gly Glu Ala Gln Glu Pro Glu Glu Leu		
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Ala Ser Val Ile Ile Tyr Arg Thr Leu Ala Gly Leu Leu Pro His Asn		
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Asn Thr Pro Val Val Ser Ile Ser Val His Asp Asp Glu Glu Leu Leu		1760
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Pro Arg Ala Leu Asp Lys Pro Val Thr Val Gln Phe Arg Leu Leu Glu		
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Cys Thr Val Ile Ala Ile Leu Leu His Phe Leu Tyr Leu Cys Thr Phe		1920
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Ser Trp Ala Leu Leu Glu Ala Leu His Leu Tyr Arg Ala Leu Thr Glu		
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<212> PRT

<213> Homo sapiens

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Ile	Lys	Asn	Leu	Lys	Ile	Ala	Val	Ser	Asn	Ile	Val	Thr	Gln	Pro	Pro
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Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
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Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
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Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
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Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
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Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
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1170	1175	1180
Asn Glu Gln Ile Ile Ser Ser Ala Ser Pro Cys Ala Asp Phe Phe Tyr		
1185	1190	1195
Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val		
1205	1210	1215
His Thr Glu Lys Gln Ser Thr Glu Asp Ala Val Arg Leu Ile Gln Lys		
1220	1225	1230
Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val		
1235	1240	1245
Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile		
1250	1255	1260
Leu Arg Thr Ile Gly Lys Glu Ala Phe Ser Tyr Pro Gln Lys Gln Glu		
1265	1270	1275
Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
1285	1290	1295
Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
1300	1305	1310
Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
1315	1320	1325
Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
1330	1335	1340
Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu		
1345	1350	1355
Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr		
1365	1370	1375
Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala		
1380	1385	1390
Cys Phe Val His Thr Gly Val Tyr Asn Leu Gly Thr Pro Arg Val Phe		
1395	1400	1405
Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
1410	1415	1420
Ser Met Pro Ala Leu Ile Ile Ile Ser Asn Val		
1425	1430	1435

<210> 3915

<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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300
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360
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420
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540
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720
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1260
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1320
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1680

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 1800
 aa
 1802

<210> 3916

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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Ser	Arg	Glu	Leu	Lys	Pro	Val	Gly	Val	Met	Ala	Pro	Ala	Ser	Gly	Pro
		20					25					30			
Ala	Ser	Thr	Asp	Ala	Val	Ser	Ala	Leu	Leu	Glu	Gln	Thr	Ala	Val	Glu
	35					40					45				
Leu	Glu	Lys	Arg	Gln	Glu	Gly	Arg	Ser	Ser	Thr	Gln	Thr	Leu	Glu	Asp
	50				55					60					
Ser	Trp	Arg	Tyr	Glu	Glu	Thr	Ser	Glu	Asn	Glu	Ala	Val	Ala	Glu	Glu
65				70				75					80		
Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Gly	Glu	Glu	Asp	Val	Phe	Thr	Glu
		85					90				95				
Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
	100						105				110				
Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
	115					120					125				
Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
	130				135					140					
Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
145				150				155					160		
Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
		165					170						175		
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
	180						185					190			
Met	Lys	Arg	Pro	Ser	Pro	Pro	Pro	Gln	Pro	Ser	Ser	Val	Lys	Ser	Leu
	195					200					205				
Arg	Ser	Glu	Arg	Leu	Ile	Arg	Thr	Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu
	210				215					220					
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225			230					235					240		
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
		245					250						255		
Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
	260					265						270			
Leu	Arg	Met	Leu	Glu	Lys	Arg	Gln	Met	Asp	Arg	Ala	Glu	His	Lys	Gly
	275					280					285				
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290				295						300				
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305			310					315					320		
Arg	Glu	Lys	Met	Ala	Phe	Phe	Thr	Arg	Pro	Arg	Met	Asn	Ile	Pro	Ala

325
Leu Ser Ala Asp Asp Val
340

330

335

<210> 3917
<211> 597
<212> DNA
<213> Homo sapiens

<400> 3917
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120
taacatcaga aacaggtgag aatgaccact ttaactcacc gggcccgtcg cactgaaata
180
agcaagaact ctgaaaagaa gatggaaagt gaggaagaca gtaattggga gaaaagtcca
240
gacaatgaag attctggaga ctctaaggat atccgcctta ctcttatgga agaagtattg
300
cttctgggac taaaagataa agaggggtac acatctttct ggaatgactg catatcatca
360
ggcctgagag ggggcacccg gatagagctg gccatgcggg gtcgaatcta tctggaaccc
420
ccgaccatgc gtaagaagcg actactagac agaaaggtag tgctaaagtc agacagccca
480
acaggtgatg ttttactgga tgaaactctg aaacacatca aagcaactga acccacagaa
540
actgtccaaa catggataga gctactcact ggtgagacct ggaacccctt caaatta
597

<210> 3918
<211> 152
<212> PRT
<213> Homo sapiens

<400> 3918
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Ser Glu Lys Lys Met Glu Ser Glu Glu Asp Ser Asn Trp Glu Lys Ser
20 25 30
Pro Asp Asn Glu Asp Ser Gly Asp Ser Lys Asp Ile Arg Leu Thr Leu
35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
115 120 125
Thr Glu Pro Thr Glu Thr Val Gln Thr Trp Ile Glu Leu Leu Thr Gly

130 135 140
 Glu Thr Trp Asn Pro Phe Lys Leu
 145 150

<210> 3919
 <211> 1278
 <212> DNA
 <213> Homo sapiens

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 caggcacagc atccaccag ccccatcaag tcctccagcg ccgactccac tccagcccc
 180
 accagcagcc tctctagcga agacaagcag cacctggccg tagagctggc cgacaccaag
 240
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 300
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 360
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 420
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 480
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 catgagctgg aaaaggagaa cctgcagctg aaatccaagc ttcacgacct ggaattggac
 660
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 720
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 780
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 1020
 aagcagagca accaagatct ggagaccctc agtgaggagc tgatcagaga gaaggagcag
 1080
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<210> 3920

<211> 426

<212> PRT

<213> Homo sapiens

<400> 3920

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Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
      35              40              45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
      50              55              60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
65              70              75              80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
      85              90              95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
      100             105             110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
      115             120             125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
      130             135             140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
145             150             155             160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
      165             170             175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
      180             185             190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
      195             200             205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
      210             215             220
Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
225             230             235             240
Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
      245             250             255
Glu Gln Leu Ser Lys Asn Ala Asp Leu Ser Asp Ala Ser Arg Lys Ser
      260             265             270
Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
      275             280             285
Glu Lys Glu Asn Gln Ser Leu Gln Ser Thr Ile Gln Gly Leu Arg Asp
      290             295             300
Ala Ser Leu Val Leu Glu Glu Ser Gly Leu Lys Cys Gly Glu Leu Glu
305             310             315             320
Lys Glu Asn His Gln Leu Ser Lys Lys Ile Glu Lys Leu Gln Thr Gln
      325             330             335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
      340             345             350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
      355             360             365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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      370              375              380
His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser
385              390              395              400
Ser Glu Ala Arg Met Lys Asp Val Glu Lys Glu Asn Lys Ala Leu His
      405              410              415
Gln Thr Val Thr Glu Ala Asn Gly Lys Leu
      420              425

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<210> 3921
 <211> 413
 <212> DNA
 <213> Homo sapiens

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<400> 3921
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120
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180
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240
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413

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<210> 3922
 <211> 126
 <212> PRT
 <213> Homo sapiens

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<400> 3922
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Arg Gln Pro Gly Pro Val Phe Val Gly Thr Arg Phe Gln Met Pro Leu
20      25      30
Leu Leu Ala Ser Leu Val Thr Phe Ile His Ala Gly Pro Cys Phe Leu
35      40      45
Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
50      55      60
Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
65      70      75      80
Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
85      90      95
Gln Cys Ser Val Arg Met Ile Ile Gly Phe Pro Pro Gln Phe Leu Ala
100     105     110
His Ser Phe Val Ala Leu Val Thr Ala Phe Cys Asp Asn Ile
115     120     125

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<210> 3923
 <211> 820

<212> DNA

<213> Homo sapiens

<400> 3923

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120
tcttcttctt cttgctgaag cttctgctcc atctctcgca ggactgggtc tgttggggcc
180
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240
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480
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caggtttcca gtgggatctc agtgctactt ttattatcac tgtcctgttc tgcttttggt
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660
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720
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820

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<210> 3924

<211> 250

<212> PRT

<213> Homo sapiens

<400> 3924

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Lys Pro Leu Val Ala Val Asn Thr Arg Leu Ser Gly Gly Gln Val Leu
20          25          30
Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
35          40          45
Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
50          55          60
Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
65          70          75          80
Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
85          90          95
Pro Asp Ala Lys Leu Asp Lys Thr Cys Ile Ser Arg Ala Met Lys Ile
100         105         110
Thr Thr Val Asn Ser Val Leu Pro Gln Asn Ser Val Leu Gly Gly Val

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115	120	125
Leu Lys Thr Lys Gln Gln	Leu Lys Thr Leu Asn His	Phe Asp Leu Thr
130	135	140
Asn Gly Val Leu Val Glu Ser	Leu Ser Glu Glu Pro Leu	Pro Ser Leu
145	150	155
Arg Arg Gly Arg Lys Arg	His Cys Lys Thr Lys His	Leu Glu Gln Asn
165	170	175
Gly Ser Leu Lys Lys Leu Arg	Gln Thr Ser Gly Glu Val	Gly Leu Ala
180	185	190
Pro Thr Asp Pro Val Leu Arg	Glu Met Glu Gln Lys Leu	Gln Gln Glu
195	200	205
Glu Glu Asp Arg Gln Leu Ala	Leu Gln Leu Gln Arg Met	Phe Asp Asn
210	215	220
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225	230	235
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245	250	

<210> 3925

<211> 3296

<212> DNA

<213> Homo sapiens

<400> 3925

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900

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<210> 3926

<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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			20					25					30		
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
			35				40					45			
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Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
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Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
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Arg	Lys	Pro	Asn	Gln	Pro	Tyr	Arg	Trp	Leu	Ser	Tyr	Lys	Gln	Val	Ser
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Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
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Lys Ser Gly Ile Glu Ile Leu Ser Leu Tyr Asp Ala Glu Asn Leu Asp
225      230      235      240
Lys Glu His Phe Arg Lys Pro Val Pro Pro Ser Pro Glu Asp Leu Ser
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Val Ile Cys Phe Thr Ser Gly Thr Thr Gly Asp Pro Lys Gly Ala Met
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Ile Thr His Gln Asn Ile Val Ser Asn Ala Ala Ala Phe Leu Lys Cys
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Val Glu His Ala Tyr Glu Pro Thr Pro Asp Asp Val Ala Ile Ser Tyr
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305      310      315      320
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Arg Leu Leu Asn Arg Ile Tyr Asp Lys Val Gln Asn Glu Ala Lys Thr
      355      360      365
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Glu Leu Gln Lys Gly Ile Ile Arg His Asp Ser Phe Trp Asp Lys Leu
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Ile Phe Ala Lys Ile Gln Asp Ser Leu Gly Gly Arg Val Arg Val Ile
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Val Thr Gly Ala Ala Pro Ile Ser Thr Pro Val Leu Thr Phe Phe Arg
      420      425      430
Ala Ala Met Gly Cys Trp Val Phe Glu Ala Tyr Gly Gln Thr Glu Cys
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Val Gly Val Pro Leu Ala Cys Asn Tyr Val Lys Leu Glu Asp Val Ala
465      470      475      480
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Gly Thr Asn Val Phe Lys Gly Tyr Leu Lys Asp Pro Glu Lys Thr Gln
      500      505      510
Glu Ala Leu Asp Ser Asp Gly Trp Leu His Thr Gly Asp Ile Gly Arg
      515      520      525
Trp Leu Pro Asn Gly Thr Leu Lys Ile Ile Asp Arg Lys Lys Asn Ile
      530      535      540
Phe Lys Leu Ala Gln Gly Glu Tyr Ile Ala Pro Glu Lys Ile Glu Asn
545      550      555      560
Ile Tyr Asn Arg Ser Gln Pro Val Leu Gln Ile Phe Val His Gly Glu
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Ser Leu Arg Ser Ser Leu Val Gly Val Val Val Pro Asp Thr Asp Val
      580      585      590
Leu Pro Ser Phe Ala Ala Lys Leu Gly Val Lys Gly Ser Phe Glu Glu

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<210> 3927

<211> 3197

<212> DNA

<213> Homo sapiens

<400> 3927

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<210> 3928

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3928

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			20					25					30		
Asp	Ser	Ser	Ser	Arg	Arg	Arg	Arg	Ser	Cys	Cys	Thr	Gly	Ser	Leu	Gly
		35					40					45			
Pro	Met	Pro	Arg	Leu	Pro	Ser	Leu	Trp	Pro	Leu	Ser	Leu	Pro	Leu	Arg
		50				55					60				
Ser	Leu	Ser	Ser	Pro	His	Arg	Val	Gln	Gly	Leu	Gly	Pro	Pro	Arg	Arg
65					70				75					80	
Leu	Lys	Ser	Gln	Leu	Pro	Arg	Phe	Phe	Trp	Arg	Arg	Gln	Gln	Glu	
			85					90					95		
Pro	Leu	Ser	Ser	Phe	Pro	Gly	Arg	Asn	Glu	Gly	Gly	Ser	Glu	Met	Glu
			100				105						110		
Ile	Leu	Gly	Val	Cys	Pro	Val	Ser	Pro	Gly	Ala	Leu	Ser	Tyr	Met	Glu
		115					120					125			
Ser	Pro	Thr	Gly	Phe	Trp	Arg	Pro	Arg	Glu	Ala	Ser	Ser	Leu	Glu	Leu
		130				135					140				
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145					150				155					160	
Cys	Pro	Asn	Pro	Arg	Ser	Ser	Glu	Ala	Phe	Pro	Gly	Ala	Val	Cys	Val
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<210> 3929

<211> 470

<212> DNA

<213> Homo sapiens

<400> 3929

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<210> 3930

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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Gln Ser Glu Asn Glu Ala Ser Pro Val Lys Arg Pro Arg Leu Leu Glu
35        40        45
Asn Thr Glu Arg Ser Glu Glu Thr Ser Arg Ser Lys Gln Lys Ser Arg
50        55        60
Arg Arg Cys Phe Gln Cys Gln Thr Lys Leu Glu Leu Val Gln Gln Glu
65        70        75        80
Leu Gly Ser Cys Arg Cys Gly Tyr Val Phe Cys Met Leu His Arg Leu
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<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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180

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<210> 3932

<211> 293

<212> PRT

<213> Homo sapiens

<400> 3932

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			20					25					30		
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<210> 3933

<211> 4082

<212> DNA

<213> Homo sapiens

<400> 3933

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<210> 3934

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

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			20					25					30		
Ala	Ala	Gly	Thr	Ser	Ser	Pro	Ile	Arg	Pro	Val	Ser	Ser	Pro	Val	Leu
		35				40					45				
Ser	Ser	Ser	Asn	Lys	Ser	Pro	Ser	Ser	Ala	Trp	Ser	Ser	Ser	Ser	Trp
	50				55				60						
His	Gly	Arg	Ile	Lys	Gly	Gly	Met	Lys	Gly	Phe	Gln	Ser	Phe	Met	Val
65				70				75						80	
Ser	Asp	Ser	Asn	Met	Ser	Phe	Val	Glu	Phe	Val	Glu	Leu	Phe	Lys	Ser
			85					90						95	
Phe	Ser	Val	Arg	Ser	Arg	Lys	Asp	Leu	Lys	Asp	Leu	Phe	Asp	Xaa	Leu

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 <211> 1103
 <212> DNA
 <213> Homo sapiens

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 <212> PRT

<213> Homo sapiens

<400> 3936

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Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
          35           40           45
Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
          50           55           60
Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
          85           90           95
Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
          100          105          110
Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
          115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
          130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
145          150          155          160
Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
          165          170          175
Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Lys
          180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
          195          200          205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
          210          215          220
Gly Gly Gly Asp Ser Leu Ser Arg Glu Gly Gly Trp Gly Gly Arg Ile
225          230          235          240
Gly Gly Phe Pro Arg Thr Gly Gly Arg Leu Pro Gly Ala Ser Tyr Gln
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Pro Arg Arg Gln Lys Cys Pro Val Pro
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<210> 3937

<211> 744

<212> DNA

<213> Homo sapiens

<400> 3937

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300

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<210> 3938

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

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		20						25					30		
Arg	Arg	Gly	Trp	Arg	Gly	Leu	Arg	Ala	Pro	Arg	Tyr	Arg	Asp	Pro	Gly
		35				40					45				
Arg	Ala	Ala	Glu	Ala	Gly	Asn	Ala	Lys	Gly	Asp	Ala	Thr	Ala	Gly	Pro
	50					55				60					
Lys	Glu	Gln	Gly	Gly	Gly	Gln	Asp	Pro	Ala	Ala	Ile	Ala	Gly	His	
65				70					75					80	
Ser	Ala	Gly	Gly	Ser	Asp	His	Ala	Gly	Glu	Arg	Gly	Leu	Xaa	Gly	Arg
			85					90						95	
Thr	Gly	Trp	Leu	Ala	Ala	Lys	Ala	Ala	Pro	Ala	Gly	Gly	His	Arg	Glu
		100						105					110		
Thr	Gly	Leu	Ala	Ser	Val	Gly	Ala	Gly	Pro	Trp	Leu	Gly	Arg	Arg	Asn
		115					120					125			
Pro	Arg	Gln	Pro	Phe	Ser	Phe	Val	Gly	Pro	Ala	Glu	Ser	Pro	Asp	Arg
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<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

<400> 3939

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<210> 3940
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 3940
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<210> 3941
 <211> 2077
 <212> DNA
 <213> Homo sapiens

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2077

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<211> 89
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
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 <211> 1524
 <212> DNA
 <213> Homo sapiens

<400> 3943
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 420
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 480
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 540
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 600
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 780
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 900

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 960
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40				45				
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
	50					55					60				
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70				75					80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100					105					110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120					125			
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
						135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145					150					155					160
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
				165					170					175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
				180				185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

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      195              200              205
Phe Glu Val Phe Ile His Lys Val Asp Gly Leu Ser Asp Asp His Lys
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Ile Glu Thr Gln Arg Asp Ile His Gln Arg Ala Asn Asp Asp Leu Ala
225              230              235              240
Asp Ala Gly Leu Glu Lys Ile His Leu Ser Phe Tyr Leu Thr Ser Ile
      245              250              255
Tyr Asp His Ser Ile Phe Glu Ala Phe Ser Lys Val Val Gln Lys Leu
      260              265              270
Ile Pro Gln Leu Pro Thr Leu Glu Asn Leu Leu Asn Ile Phe Ile Ser
      275              280              285
Asn Ser Gly Ile Glu Lys Ala Phe Leu Phe Asp Val Val Ser Lys Ile
      290              295              300
Tyr Ile Ala Thr Asp Ser Thr Pro Val Asp Met Gln Thr Tyr Glu Leu
305              310              315              320
Cys Cys Asp Met Ile Asp Val Val Ile Asp Ile Ser Cys Ile Tyr Gly
      325              330              335
Leu Lys Glu Asp Gly Ala Gly Thr Pro Tyr Asp Lys Glu Ser Thr Ala
      340              345              350
Ile Ile Lys Leu Asn Asn Thr Thr Val Leu Tyr Leu Lys Glu Val Thr
      355              360              365
Lys Phe Leu Ala Leu Val Cys Phe Val Arg Glu Glu Ser Phe Glu Arg
      370              375              380
Lys Gly Leu Ile Asp Tyr Asn Phe His Cys Phe Arg Lys Ala Ile His
385              390              395              400
Glu Val Phe Glu Val Arg Met Lys Val Val Lys Ser Arg Lys Val Gln
      405              410              415
Asn Arg Leu Gln Lys Lys Lys Arg Ala Thr Pro Asn Gly Thr Pro Arg
      420              425              430
Val Leu Leu
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<210> 3945

<211> 696

<212> DNA

<213> Homo sapiens

<400> 3945

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120
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180
tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat
240
ggcggaccgg gaggtgtgct gcttcatcac caaaatcctg tgcgcccacg ggggcccgcg
300
ggccctggac gcgctgctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct
360
gcaggtggcc gggcccgcgc gctttgtggt gttggagacc ggcggcgagg ccgggatcac
420
ccgatcgggt gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
480

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 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgcctcc tcctccaaag
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<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala	
			20				25				30				
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
	35					40					45				
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50				55				60						
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65				70				75					80		
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
			85					90					95		
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
		100					105					110			
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser
	115					120					125				
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
	130				135				140						
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145				150					155					160	
Gly	Leu	Gln	Pro	Ala											
				165											

<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctgggc ctaccagacc
 240
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

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 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
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 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
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<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca cactgctga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
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 300
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 360
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 420
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 480
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 540

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 600
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 660
 aaagaagcgc ctgcacgtgt ctgccacaca ggtcattatt tgctccacag tcaagtattt
 720
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 780
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 960
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 1020
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 1080
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 1140
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 1200
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 1440
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 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
	35					40					45				
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50				55					60					
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65			70				75						80		
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
		85				90						95			
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
	100					105						110			
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
130	135	140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu		
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<210> 3951

<211> 1012

<212> DNA

<213> Homo sapiens

<400> 3951

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120
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180
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240
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300
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540

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<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35				40						45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70				75					80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85					90					95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165					170					175		
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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120
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300
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<210> 3954

<211> 627

<212> PRT

<213> Homo sapiens

<400> 3954

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3114

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465              470              475              480
Ser Lys Ser Ser Gly Leu Ser Thr Trp Ile Gly Asn Gln Met Leu Ser
      485              490              495
Leu Ser Ser Leu Pro Pro Trp Ala Val Thr Leu Leu Ala Cys Ile Leu
      500              505              510
Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr Ile Thr Ile
      515              520              525
Phe Leu Pro Ile Leu Cys Ser Leu Ser Glu Thr Met His Ile Asn Pro
      530              535              540
Leu Tyr Thr Leu Ile Pro Val Thr Met Cys Ile Ser Phe Ala Val Met
545              550              555              560
Leu Pro Val Gly Asn Pro Pro Asn Ala Ile Val Phe Ser Tyr Gly His
      565              570              575
Cys Gln Ile Lys Asp Met Val Lys Ala Gly Leu Gly Val Asn Val Ile
      580              585              590
Gly Leu Val Ile Val Met Val Ala Ile Asn Thr Trp Gly Val Ser Leu
      595              600              605
Phe His Leu Asp Thr Tyr Pro Ala Trp Ala Arg Val Ser Asn Ile Thr
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Asp Gln Ala
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<210> 3955

<211> 522

<212> DNA

<213> Homo sapiens

<400> 3955

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<210> 3956

<211> 174

<212> PRT

<213> Homo sapiens

<400> 3956

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Glu Tyr Thr Leu Glu Ala Ser Lys Ser Leu Arg Gln Lys Pro Gly Asp
           20           25           30
Ser Thr Met Thr Tyr Leu Asn Lys Gly Gln Phe Tyr Pro Ile Thr Leu
           35           40           45
Lys Glu Val Ser Ser Ser Glu Asn Pro Ser Ser His Ser Lys Val Arg
           50           55           60
Ser Val Ile Met Val Val Phe Ala Glu Asp Lys Ser Arg Glu Asp Gln
65           70           75           80
Leu Arg His Trp Lys Tyr Trp His Ser Arg Gln His Thr Ala Lys Gln
           85           90           95
Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
           100          105          110
Asn Ile Glu Glu Ile Ala Tyr Asn Ala Ile Ser Phe Thr Trp Asp Ile
           115          120          125
Asn Asp Glu Ala Lys Val Phe Ile Ser Val Asn Cys Leu Ser Thr Asp
           130          135          140
Phe Ser Ser Gln Lys Gly Val Lys Gly Leu Pro Leu Asn Ile Gln Val
145          150          155          160
Asp Thr Tyr Ser Tyr Asn Asn Arg Ser Asn Lys Pro Val His
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<210> 3957

<211> 3891

<212> DNA

<213> Homo sapiens

<400> 3957

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720

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<210> 3958

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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           20           25           30
Thr Glu Pro Ala Gln Ala Gln Lys Cys Tyr Arg Asp Leu Ala Leu Val
           35           40           45
Ser Arg Asp Gly Met Asn Ile Val Leu Asn Lys Ile Asn Gln Ile Leu
           50           55           60
Met Glu Lys Tyr Leu Lys Leu Gln Asp Thr Cys Arg Thr Gln Leu Val
65           70           75           80
Trp Leu Val Arg Glu Leu Val Lys Ser Gly Val Leu Gly Ala Asp Gly
           85           90           95
Val Cys Met Thr Phe Met Lys Gln Ile Ala Gly Gly Asp Val Thr Ala
           100          105          110
Lys Asn Ile Trp Leu Ala Glu Ser Val Leu Asp Ile Leu Thr Glu Gln
           115          120          125
Arg Glu Trp Val Leu Lys Ser Ser Ile Leu Ile Ala Met Ala Val Tyr
           130          135          140
Thr Tyr Leu Arg Leu Ile Val Asp His His Gly Thr Ala Gln Leu Gln
145           150          155          160
Ala Leu Arg Gln Lys Glu Val Asp Phe Cys Ile Ser Leu Leu Arg Glu
           165          170          175
Arg Phe Met Glu Cys Leu Met Ile Gly Arg Asp Leu Val Arg Leu Leu
           180          185          190
Gln Asn Val Ala Arg Ile Pro Glu Phe Glu Leu Leu Trp Lys Asp Ile
           195          200          205
Ile His Asn Pro Gln Ala Leu Ser Pro Gln Phe Thr Gly Ile Leu Gln
           210          215          220
Leu Leu Gln Ser Arg Thr Ser Arg Lys Phe Leu Ala Cys Arg Leu Thr
225           230          235          240
Pro Asp Met Glu Thr Lys Leu Leu Phe Met Thr Ser Arg Val Arg Phe
           245          250          255
Gly Gln Gln Lys Arg Tyr Gln Asp Trp Phe Gln Arg Gln Tyr Leu Ser
           260          265          270
Thr Pro Asp Ser Gln Ser Leu Arg Cys Asp Leu Ile Arg Tyr Ile Cys
           275          280          285
Gly Val Val His Pro Ser Asn Glu Val Leu Ser Ser Asp Ile Leu Pro
           290          295          300
Arg Trp Ala Ile Ile Gly Trp Leu Leu Thr Thr Cys Thr Ser Asn Val
305           310          315          320
Ala Ala Ser Asn Ala Lys Leu Ala Leu Phe Tyr Asp Trp Leu Phe Phe
           325          330          335
Ser Pro Asp Lys Asp Ser Ile Met Asn Ile Glu Pro Ala Ile Leu Val
           340          345          350
Met His His Ser Met Lys Pro His Pro Ala Ile Thr Ala Thr Leu Leu
           355          360          365
Asp Phe Met Cys Arg Ile Ile Pro Asn Phe Tyr Pro Pro Leu Glu Gly
           370          375          380
His Val Arg Gln Gly Val Phe Ser Ser Leu Asn His Ile Val Glu Lys

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385          390          395          400
Arg Val Leu Ala Cys Lys Lys Tyr Trp Leu Tyr Leu Arg Leu Leu Gly
          405          410          415
Ile Cys Leu Leu Xaa Leu Leu Glu Glu Phe Leu Ser Cys His Arg Ile
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Thr Lys Thr Pro Ser Ser Pro Val
          435          440

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<210> 3959
 <211> 752
 <212> DNA
 <213> Homo sapiens

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<400> 3959
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240
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300
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<210> 3960
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 3960
Pro Leu Gly Arg Pro Gly Ala His Arg Ala Phe Ile Trp Leu Tyr Lys
1          5          10          15
Gly Pro Asn Ser Pro Leu Asp Phe Leu Phe Ser Phe Gln Asn Ala Val
          20          25          30
Ser Lys Tyr Gly Ser Gln Phe Gln Gly Asn Ser Gln His Asp Ala Leu
          35          40          45
Glu Phe Leu Leu Trp Leu Leu Asp Arg Val His Glu Asp Leu Glu Gly

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50	55	60
Ser Ser Arg Trp Ala Arg Cys Arg Arg Ser Phe Arg Leu Lys Pro Leu		
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Lys Pro Leu Arg Thr Ala Cys His His Gln Leu Ser Phe Leu		80
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<210> 3961

<211> 2505

<212> DNA

<213> Homo sapiens

<400> 3961

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1260

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<210> 3962

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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			20					25					30		
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

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Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
65              70              75              80
Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
      85              90              95
Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
      100             105             110
Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
      115             120             125
Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
      130             135             140
Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
145             150             155             160
Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
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Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
      180             185             190
Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
      195             200             205
His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
      210             215             220
Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
225             230             235             240
Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
      245             250             255
Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
      260             265             270
Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
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Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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120
ataaatccat ttgttaaaca gttttcaaac atcagttttt cgagagactc accagaggaa
180
aatgtacaaa gcaataagat ggacctttct ggaggaatgt tacaagacaa acgaatggag
240
atagataaac atagcctaaa tattggtgat tacaatcgaa cggtcgggaa aggccttggt
300
tctcgccctc agatttccaa agagtcttcc atggagcgca atccttattt tgataagaat
360

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ggcaatccca gatatgttgg tgttggaaac acagcagcac aaccccgggg catgcagcag
 420
 cctccagcac aacctcttag ttcattctcag cctaattctcc gtgctcaagt gcctcctcca
 480
 ttactctccc ctccaggttcc agtttcattg ctgaagtatg caccaaaca cgggtggcctg
 540
 aatccactct ttggccctca acaggtagcc atgctgaacc agctatccca gctaaaccag
 600
 ctttctcaga tctcccagtt acagcgattg ttagcgcagc agcaaagggc gcagagtcag
 660
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 960
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 1380
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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

Met	Ala	Met	Ala	Ser	Phe	Leu	Leu	Phe	Tyr	Phe	Thr	Lys	Gly	Met	Met
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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25				30			
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35					40				45				
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg


```

      50              55              60
Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr
65              70              75              80
Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser
      85              90              95
Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe
      100             105             110
Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro
      115             120             125
Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro
      130             135             140
Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala
145             150             155             160
Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala
      165             170             175
Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln
      180             185             190
Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser
      195             200             205
Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu
      210             215             220
Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn
225             230             235             240
Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His
      245             250             255
Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr
      260             265             270
Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe
      275             280             285
Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser
      290             295             300
Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser
305             310             315             320
Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala
      325             330             335
Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp
      340             345             350
Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly
      355             360             365
Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn
      370             375             380
Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn
385             390             395             400
Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn
      405             410             415
Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg
      420             425             430
Asn Ser Gly Thr
      435

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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

<400> 3965
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120
cttgtctgag gaaagacagg aaagcgccag catctccacc ttccccggaa gcctcccttt
180
gccaggcaga aagggtttcc catggggccg cccctggcgc cgcgcccggc ccacgtaccc
240
ggggaggccg gggcccggag gacgagggaa agcaggccgg gcgccgtgag cttcgcgga
300
gtggccgtgt acttctctcc cgaggagtgg gaatgcctgc ggccagcgca gagggccctg
360
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420
tccggccggg acccccagtc cgtcggattt tcagttccca aaccgcttt tatctcgtgg
480
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540
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600
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660
tggtggccca gcgtcgctg cccagagttc tgcaacccta ggcagagccc catgaatccc
720
tggtcaagg acactctgac ccgaagactg cccactctt gccagactg tggccgcaac
780
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840
tcctgcggcc agtgtcaggc gcgtttctcc cagcgcagg acctgctcca gcatcagttc
900
atccacaccg gcgagaagcc ctaccctgc cccgactgcg ggcgcgctt ccgccagagg
960
ggttccctgg ctatccacag gcgggctcac accggggaga agccttacgc gtgctcagac
1020
tgcaagatc gcttcaacta cccctacctg ctggccatcc accagcgcaa gcacacgggc
1080
gagaagccct acagctgccc cgattgcagc ctccgtttcg cctacacctc cctgctggcc
1140
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1200
ttcacctatt ctccctcct cctcagtcac cggcgcatte actccgacag ccggcccttc
1260
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1320
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1380
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1440
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1560

tattgcgggc acagaggggt aagtgaagct tcgggccctt acatctttct tgaaggcaag
 1620
 aagcctctcc tctacttccc agacaccccg cctccccac tagaaaaagc agccgaagcg
 1680
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 1740
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 1800
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 1860
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 1920
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 1980
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 2040
 aacaggaagg aagaggaacc ggaggaagtc ccaagagcca aagggcctag aaaggctcct
 2100
 gtgaaggaga gtctgaagt gctggtgaa cgcaaccctg acccagctat tagcgtggcc
 2160
 ccggcacggg cacagccacc caaaaatgct gcctgggacc cgaccacagg agcacagccc
 2220
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 2280
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 2340
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 2400
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 2460
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 2520
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 2640
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 2700
 agtgccgtga aagattcgaa tagattagac ttgccacca tctccccagt cttttgttta
 2760
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 2820
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 2850

<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

Met Gly Pro Pro Leu Ala Pro Arg Pro Ala His Val Pro Gly Glu Ala
 1 5 10 15
 Gly Pro Arg Arg Thr Arg Glu Ser Arg Pro Gly Ala Val Ser Phe Ala

3128

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      450              455              460
Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro
465              470              475              480
Asp Thr Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe
      485              490              495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Ala
      500              505              510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys
      515              520              525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu
      530              535              540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val
545              550              555              560
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro
      565              570              575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser
      580              585              590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg
      595              600              605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro
610              615              620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val
625              630              635              640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg
      645              650              655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln
      660              665              670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg
675              680              685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu
690              695              700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro
705              710              715              720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln
      725              730              735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly
      740              745              750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro
      755              760              765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly
770              775              780

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<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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120
tactggatcc gaggcgggac ctcagtggac atcatcaaga ctggaggcta caaggtcagc
180

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gccctggagg tggagtggca cctgctggcc caccacagca tcacagatgt ggctgtgatt
 240
 ggagttccgg atatgacatg gggccagcgg gtcactgctg tggtgaccct ccgagaagga
 300
 cactcactgt cccacagggg gctcaaagag tgggcccagaa atgtcctggc cccgtacgcy
 360
 gtgccctcgg agctgggtgct ggtggaggag atcccccgga accagatggg caagattgac
 420
 aagaaggcgc tcacagggca cttccacccc tcacgacccg gcagactggg actgcggggtc
 480
 tgggtggggag cagcagacgt ccccttcaca ccgagaacca cggggggccc tccaagacct
 540
 ggcctccctt aaacctgaac cccccaatc aggtcacgta gaatcaagaa ctgtttggga
 600
 tgaaatcacc atgtgggggtc cccagcctcg ggccagtgtg tgcagctcaa ggagaccgtc
 660
 cctggtgtca cctctgctg gtcaccgccg acctcatctg tgcagcgccg tgcagccagc
 720
 ccctggcccc acgtgctgag gcacctcccg cccacagtg cctgcagtt gccaggctct
 780
 ccagggcagg tcccagaggt tccccacaaa aaacaaataa agactccact ggaggaaaca
 840
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 892

<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

Xaa	Pro	Ala	Arg	Pro	Arg	Arg	Ala	Arg	Gly	Gly	Gly	Arg	Gly	Arg	Val
1				5					10					15	
Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Arg	Gly	Arg	Leu	Val	Gly	Asp
			20					25				30			
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
		35				40					45				
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
	50				55					60					
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
65				70					75					80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85				90					95			
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
		100					105					110			
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
	115					120					125				
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
	130				135						140				
Ile	Arg	His	Phe	His	Pro	Ser									
145					150										

<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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ggcacctcgg gcaggacctc cctgggtcggg agtggccgtg agcccaagcc gcggtcccgg
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120
ggattgcaac tcggggaggg atggagcacg cgtcgtcgcc tgggaaacgg gtcgacccgc
180
ggaaggcgag cgggtgggac ttccggagca gttaattggt gggaaacttt ctagtggatg
240
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300
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360
gagagccccc ctgggggagc gccccccatc ttctgacct cggaaggcca agccctggtc
420
ctgggcaggg gaccctgac ccaggttacg gaccggaagt gctccagaac tcaagtggag
480
ctggtcgtag atcctgagac ccggacagtg gcagtgaac aggtatcagt gcctctgcaa
540
gggccagcaa ggcctgggga tgggatttgg ggaggaattg caagccgtca gtgaaggggt
600
acattaggaa aatctgattg gggccgggcg tgggtggctca agcctgtaat ccagcactt
660
tgggaggccg aggggggagg atcgcttgaa cccaggagtt cgagaccagc ctgagcgaca
720
tgggtgaaacc tgtctctcta aaaaattagc gggaatggtg gcgcgtcctt gtagttccta
780
atcgggaggc tgaagcggga ggatcccttg agcccagtag gtcaaggggtg tagtgagcag
840
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900
aagaaaaaat atggc
915

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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Met Gly Glu Val Glu Ala Pro Gly Arg Leu Trp Leu Glu Ser Pro Pro
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Gly Gly Ala Pro Pro Ile Phe Leu Pro Ser Asp Gly Gln Ala Leu Val
20          25          30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35          40          45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50          55          60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65          70          75          80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971

<211> 433

<212> DNA

<213> Homo sapiens

<400> 3971

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120
ctggggaacg ggtaatcaga gaaacctca ctcatagggt ggtgcccttt atgcagagac
180
ttaaaggaag gagggaggtc ccttgacaga gagaatggta agtgcaaagg tcctgggtgg
240
gcttggtgtg aggaagagca aggccagtgt ggctggaaca gagtgagtga aggggagaga
300
gttgtaagca atgagcttag acaggaaatg gggctctggtt cacatgggaa atggtaggac
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420
ctaataacca gaa
433

<210> 3972

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3972

Met	Ser	Tyr	His	Phe	Pro	Cys	Glu	Pro	Asp	Pro	Ile	Ser	Cys	Leu	Ser
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Ser	Leu	Leu	Thr	Thr	Leu	Ser	Pro	Ser	Leu	Thr	Leu	Phe	Gln	Pro	His
		20					25					30			
Trp	Pro	Cys	Ser	Ser	Ser	Thr	Gln	Ala	His	Pro	Gly	Pro	Leu	His	Leu
	35					40					45				
Pro	Phe	Ser	Leu	Ser	Gly	Asp	Leu	Pro	Pro	Ser	Phe	Lys	Ser	Leu	His
	50				55					60					
Lys	Gly	His	His	Pro	Met	Ser	Glu	Gly	Phe	Ser	Asp	Tyr	Pro	Phe	Pro
65				70				75					80		
Ser	Arg	Ala	Leu	Pro	Ser	Met	Leu	His	Phe	Phe	Pro	Arg	Ala	Leu	Asn
		85					90					95			
Thr	Thr	Tyr	Leu	Ser	Phe	Ile	Phe	Ser	Leu	Ser	Phe	Phe	Cys	Leu	Leu
	100						105					110			
Pro	Leu	Glu	His	His	Gln	Ser	Arg								
	115					120									

<210> 3973

<211> 984

<212> DNA

<213> Homo sapiens

<400> 3973

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 120
 tgctccacct acttgagtc cagatattac agggcccctg agatcctcct tggtttacca
 180
 ttttgtgagg caattgacat gtgggtccctg ggctgtgtta ttgcagaatt gttcctgggt
 240
 tggccgttat atccaggagc ttcggagtat gatcagattc ggtatatattc acaaacacag
 300
 gggttgcttg ctgaatattt attaagcgcc gggacaaaaga caactagggt tttcaaccgt
 360
 gacacggact caccatatcc tttgtggaga ctgaagacac cagatgacca tgaagcagag
 420
 acagggatta agtcaaaaga agcaagaaag tacattttca actgttttaga tgatatggcc
 480
 caggtgaaca tgacgacaga tttggaaggg agcgacatgt tggtagaaaa ggctgaccgg
 540
 cgggagttca ttgacctgtt gaagaagatg ctgaccattg atgctgacaa gagaatcact
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 660
 agcacacacg tcaaatcatg tttccagaac atggagatct gcaagcgtcg ggtgaatatg
 720
 tatgacacgg tgaaccagag caaaaccctt ttcacacgc acgtggcccc cagcacgtcc
 780
 accaacctga ccatgacctt taacaaccag ctgaccactg tccacaacca gcctcagcg
 840
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 960
 ttgcaggcct ctcccttcac gcgt
 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
1				5					10					15	
Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
		20						25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
		35					40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
		50				55				60					
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65					70				75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
				85				90						95	
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

```
<210> 3975
<211> 593
<212> DNA
<213> Homo sapiens
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3134

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<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

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			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
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Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
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His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65					70					75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

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			20				25					30			
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
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	50				55				60						
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		100					105					110			
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
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Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
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Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
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Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245					250					255		
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
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      325              330              335
Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
      340              345              350
Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
      355              360              365
Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
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Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
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His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu
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Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
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Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys
  465              470              475              480
Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp
      485              490              495
Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala
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Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu
      515              520              525
Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu
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Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala
  545              550              555              560
His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu
      565              570              575
Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser
      580              585              590
Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly
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Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser
      610              615              620
Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser
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Asp Leu Ala Gln Leu Leu Arg Leu Asp Tyr Asn Lys Tyr Tyr Thr
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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			20					25					30		
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
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Asn Ser Ser Trp Arg Asp Ala Met Val Gln Asp Ile Thr Gln Lys Phe		140
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Glu Tyr Tyr Pro Ile Leu Asp Gly Leu Lys Arg Asn Tyr Asn Asp Pro		175
	180	185
Glu Asp Arg Val Lys Phe Arg Ser Lys Gln Asn Val Asp Tyr Ala Phe		190
	195	200
Leu Leu Asn Phe Cys Ala Asn Thr Ser Asp Tyr Tyr Val Met Leu Glu		205
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Asp Asp Val Arg Cys Ser Lys Asn Phe Leu Thr Ala Ile Lys Lys Val		220
225	230	235
Ile Ala Ser Leu Glu Gly Thr Tyr Trp Val Thr Leu Glu Phe Ser Lys		240
	245	250
Leu Gly Tyr Ile Gly Lys Leu Tyr His Ser His Asp Leu Pro Arg Leu		255
	260	265
Ala His Phe Leu Leu Met Phe Tyr Gln Glu Met Pro Cys Asp Trp Leu		270
	275	280
Leu Thr His Phe Arg Gly Leu Leu Ala Gln Lys Asn Val Ile Arg Phe		285
	290	295
Lys Pro Ser Leu Phe Gln His Met Gly Tyr Tyr Ser Ser Tyr Lys Gly		300
305	310	315
Thr Glu Asn Lys Leu Lys Asp Asp Asp Phe Glu Glu Glu Ser Phe Asp		320
	325	330
Ile Pro Asp Asn Pro Pro Ala Ser Leu Tyr Thr Asn Met Asn Val Phe		335
	340	345
Glu Asn Tyr Glu Ala Ser Lys Ala Tyr Ser Ser Val Asp Glu Tyr Phe		350
	355	360
Trp Gly Lys Pro Pro Ser Thr Gly Asp Val Phe Val Ile Val Phe Glu		365
	370	375
Asn Pro Ile Ile Ile Lys Lys Ile Lys Val Asn Thr Gly Thr Glu Asp		380
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	405	410
Val Met Pro Ser Lys Gln Arg Arg Gln Cys Ser Ser Tyr Leu Arg Leu		415
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	435	440
Ile Pro Phe Asp Ile His Cys Met Arg Ile Tyr Val Thr Lys Thr Gln		445
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<212> DNA
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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 3983

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<212> PRT

<213> Homo sapiens

<400> 3984

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<211> 523

<212> DNA

<213> Homo sapiens

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Cys Cys Trp Met Arg Leu Arg Ser Glu Arg Leu Ser Ser Ala Leu Ala

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<213> Homo sapiens

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 Glu Leu Phe Ala Gln His Ile Val Thr Ile Val His His Val Lys Glu
 625 630 635 640
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 His Gly Leu Ala His Asp Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr
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 740 745 750
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<211> 381
<212> DNA
<213> Homo sapiens
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<210> 3992
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<212> PRT
<213> Homo sapiens
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Ala Gln Gln Thr Asp Val Tyr Tyr Gln Asp Pro Arg Gly Ala Ala Pro
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Pro Phe Glu Pro Ala Pro Tyr Gln Gln Gly Met Tyr Tyr Thr Pro Pro

```



```

      35              40              45
Pro Gln Cys Val Ser Arg Phe Val Arg Pro Pro Pro Ser Ala Pro Glu
      50              55              60
Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
      65              70              75              80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
      85              90              95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
      100              105              110
Thr Arg Glu Glu Ile Phe Arg Glu Ser Pro Ile Pro Ile Glu Ile
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 <211> 394
 <212> DNA
 <213> Homo sapiens

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300
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<210> 3994
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 <212> PRT
 <213> Homo sapiens

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      20      25      30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
      35      40      45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
      50      55      60
Val Ala Asn Gly Ala His Val Glu
65      70

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<210> 3995
 <211> 715
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 3996

<211> 235

<212> PRT

<213> Homo sapiens

<400> 3996

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		20						25					30		
Ser	Ser	Ser	Val	Arg	Arg	Thr	Gln	Ala	Ile	Arg	Arg	Arg	His	Asn	Ala
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Ser	Leu	Gln	Glu	Ala	Gln	Arg	Gly	Arg	Ala	Ala	Ser	His	Ser	Arg	Ala
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Leu	Thr	Leu	Pro	Ser	Ala	Leu	His	Phe	Ala	Ser	Ser	Leu	Leu	Leu	Thr
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Arg	Ala	Gly	Ala	Asn	Val	His	Glu	Ala	Cys	Thr	Phe	Asp	Asp	Thr	Ser
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Glu	Gly	Ala	Val	His	Tyr	Phe	Tyr	Asp	Glu	Ser	Gly	Val	Arg	Arg	Ser
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Tyr	Thr	Phe	Gly	Leu	Ala	Gly	Gly	Gly	Tyr	Glu	Asn	Pro	Val	Gly	Gln
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Gln	Gly	Glu	Gln	Thr	Ala	Asn	Gly	Ala	Trp	Asp	Arg	His	Ser	His	Ser
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Ser	Ser	Phe	His	Ser	Ala	Asp	Val	Pro	Glu	Ala	Thr	Gly	Gly	Leu	Asn
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Leu	Leu	Gln	Pro	Arg	Pro	Val	Val	Leu	Gln	Gly	Met	Gln	Val	Arg	Arg

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Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<211> 7484

<212> DNA

<213> Homo sapiens

<400> 3997

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<210> 3998

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<212> PRT

<213> Homo sapiens

<400> 3998

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Glu Ala Glu Ala Phe Ala Leu Tyr His Lys Ala Leu Asp Leu Gln Lys
      35           40           45
His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
      50           55           60
Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
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Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
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Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Arg Lys Asp Ser Leu Arg Met Phe Leu Lys Cys Asp Met Ser Ile His
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Asp Val Ser Val Ser Ala Ala Glu Thr Gln Ala Ile Val Asp Glu Ala
225          230          235          240
Leu Gly Leu Arg Lys Lys Arg Gln Ala Leu Ile Val Arg Glu Lys Glu
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Pro Asp Leu Lys Leu Val Gln Pro Ile Pro Phe Phe Thr Trp Lys Cys
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Pro Pro Arg Pro Ser Leu Gly Lys Arg Ile Asp Leu Ser Asp Tyr Gln
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Asp Pro Ser Gln Pro Leu Glu Ser Ser Met Val Val Thr Pro Val Asn
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Val Ile Gln Pro Ser Thr Val Ser Thr Asn Pro Ala Val Ala Val Ala
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Glu Pro Val Val Ser Tyr Thr Ser Val Ala Thr Thr Ser Phe Pro Leu
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His Ser Pro Gly Leu Leu Glu Thr Gly Ala Pro Val Gly Asp Ile Ser
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Gly Gly Asp Lys Ser Lys Lys Gly Val Lys Arg Lys Lys Ile Ser Glu
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Glu Ser Gly Glu Thr Ala Lys Arg Arg Ser Ala Arg Val Arg Asn Thr
385          390          395          400
Lys Cys Lys Lys Glu Glu Lys Val Asp Phe Gln Glu Leu Leu Met Lys
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Phe Leu Pro Ser Arg Leu Arg Lys Leu Asp Pro Glu Glu Glu Asp Asp

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 Ser Val Val Ser Leu Glu Glu Ile Asp Lys Asn Leu Lys Ser Leu Glu
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 Arg Cys Gln Ser Leu Glu Glu Ile Gln Arg Leu Tyr Glu Ala Gly Asp
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 Tyr Lys Ala Val Val His Leu Leu Arg Pro Thr Leu Cys Thr Ser Gly
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 Phe Asp Arg Ala Lys His Leu Glu Phe Met Thr Ser Ile Pro Glu Arg
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 Pro Ala Gln Leu Leu Leu Leu Gln Asp Ser Leu Leu Arg Leu Lys Asp
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 Tyr Arg Gln Cys Phe Glu Cys Ser Asp Val Ala Leu Asn Glu Ala Val
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 His Tyr His Asn Pro Pro Glu Leu Ala Met Glu Ala Leu Glu Val Tyr
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 Phe Arg Leu His Ala Ser Ile Leu Lys Leu Leu Gly Lys Pro Asp Ser
 1265 1270 1275 1280
 Gly Val Gly Ala Glu Val Leu Val Asn Phe Met Lys Glu Ala Ala Glu

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Lys	Glu	Lys	Ala	Cys	Leu	Val	Asp	Glu	Asp	Ser	His	Ser	Ser	Ala	Gly
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Thr	Leu	Pro	Gly	Pro	Gly	Ala	Ser	Leu	Pro	Ser	Ser	Ser	Gly	Pro	Gly
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Glu	Pro	Val	Ala	Phe	Pro	Gln	Gly	Leu	Pro	Ala	Gly	Ala	Glu	Glu	Gln
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Pro	Asp														

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 Pro Pro Leu Leu Pro Gly Arg Pro Ala Arg Asp Arg Gly Pro Glu Ser
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 Arg Pro Thr Glu Leu Ser Leu Glu Glu Leu Ser Ile Ser Ala Arg Gln
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 Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala
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 Ser Gly Asp Thr Pro Thr Thr Pro Lys His Pro Lys Asp Ser Arg Glu
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 1970 1975 1980
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<213> Homo sapiens

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<211> 606

<212> PRT

<213> Homo sapiens

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 35          40          45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
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Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65          70          75          80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85          90          95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
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Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
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Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
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Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
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370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
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<211> 417

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<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
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Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro	
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Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
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Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90				95		
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
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Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
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Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
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Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
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Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
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Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
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Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
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Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
	210					215					220				
Asp	Leu	Gly	Val	Thr	Thr	Ser	Val	Pro	Glu	Val	Pro	Met	Met	Glu	Lys

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<210> 4003
<211> 581
<212> DNA
<213> Homo sapiens
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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004

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Arg Pro Glu Leu Leu Cys Gly Ala Val Ala Leu Gly Cys Ala Leu Leu
      20           25           30
Leu Ala Leu Lys Phe Thr Cys Ser Arg Ala Lys Asp Val Ile Ile Pro
      35           40           45
Ala Lys Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
      50           55           60
Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
65           70           75           80
Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
      85           90           95
Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
      100          105          110
Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
      115          120          125
Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
      130          135          140
Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
145          150          155          160

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<210> 4005
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 <212> DNA
 <213> Homo sapiens

<400> 4005

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120
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180
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240
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420
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480
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540
aaacagacca gagatagtag tttcatggag aagttacatg cggtagatga ggagctggct
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666

<210> 4006
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<212> PRT
<213> Homo sapiens

<400> 4006
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Met Met Lys Ala Ala Ile Ser Glu Thr Glu Asp Met Pro Met Phe Glu
35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Glu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
180 185 190
His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
195 200 205
Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
210 215 220

<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

<400> 4007
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aattgggacc ggaaaacggt gtcgctcatc ctatgacgcg aaagtaaccg agactatcag
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240
cggagaatgg aaactgaaag tggaaatcag gaaaaggtaa tggaagaaga aagcactgaa
300

aagaaaaaag aagttgaaaa aaagaaacgg tcacgagtta aacaggtgct tgcagatatt
360
gctaagcaag tggacttctg gtttggggat gcaaattctt acaaggatag atttcttcga
420
gaacagatag aaaaatctag agatggatat gttgatatat cactacttgt gtcttttaac
480
aaaatgaaaa aattgactac tgatgggaag ttaattgcc a gagcattgag aagttcagct
540
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660
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900
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1020
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1320
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1680
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1740
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1860
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1920

accaaagctg aaaagattag actggcaaag actcaacaag cgagtaaaca tataagattt
 1980
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 2040
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 2100
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 2160
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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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		20						25				30			
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
		35				40					45				
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
	50				55					60					
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
65				70				75					80		
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85					90				95			
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
		100					105					110			
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
	115					120					125				
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
	130				135				140						
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
145				150				155						160	
Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165					170					175		
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
		180					185					190			
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
	195					200					205				
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
	210				215					220					
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225				230						235				240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245					250					255		
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

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 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
 275 280 285
 Tyr Asp
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<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

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 120
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 180
 aatgaaaaaa ccataggcag tctctctaag gagttttact gttctgaaaa cacttctgtc
 240
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 300
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 360
 gataaccaat attattgtga aaactgtgcc tctctgcaaa atgctgagaa aactatgcaa
 420
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 480
 tatcatgtga gaaggaaaat tttagacaat gtatcactgc cactggtttt ggagttgcca
 540
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<210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens

<400> 4010
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 20 25 30
 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

85 90 95
 Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp Leu Leu Asn Tyr Phe
 100 105 110
 Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln Tyr Tyr Cys Glu Asn
 115 120 125
 Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met Gln Ile Thr Glu Glu
 130 135 140
 Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe Ser Tyr Asp Gln Lys
 145 150 155 160
 Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val Ser Leu Pro Leu Val
 165 170 175
 Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe Ser Ser Leu Ser Glu
 180 185 190
 Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu Ser Glu Asn Leu Ala
 195 200 205
 Lys Lys Leu Lys Pro Ser Gly Thr Asp Glu Ala Ser Cys Thr Lys Leu
 210 215 220
 Val
 225

<210> 4011

<211> 1371

<212> DNA

<213> Homo sapiens

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 180
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 240
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 300
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 480
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 600
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 720
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 780
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 840

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 900
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 1371

<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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Ala	Ser	Leu	Glu	Ser	Ala	Pro	Arg	Ile	Met	Arg	Leu	Val	Ala	Glu	Cys
		20						25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
	35						40					45			
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
	50				55					60					
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65				70					75					80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
			85					90					95		
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
		100						105					110		
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
	115						120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
	130					135					140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
145				150					155					160	
Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
			165					170					175		
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
	180						185						190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
	195					200						205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
	210				215						220				
Leu	Arg	Ala	Thr	Cys	Leu	Glu	Glu	Met	Thr	Lys	Arg	Asp	Val	Pro	Gly

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<211> 1419
<212> DNA
<213> Homo sapiens
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180
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240
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300
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360
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420
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480
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540
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600
gacaagcact ttgggtctgg cgacctgatg gacccgaat tactggggct gacctacatc
660

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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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Glu	Tyr	Lys	Thr	Pro	Phe	Arg	Arg	Asn	Thr	Thr	Trp	His	Arg	Val	Pro
			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40				45				
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50				55					60					
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65				70					75					80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
			85				90					95			
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
		100					105				110				
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
	115				120					125					
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130				135					140					
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145			150						155				160		
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

165 170 175
 Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser
 180 185 190
 Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
 195 200 205
 Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
 210 215 220
 Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
 225 230 235 240
 Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
 245 250 255
 Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
 260 265 270
 Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
 275 280 285
 Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
 290 295 300
 Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
 305 310 315 320
 Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
 325 330 335
 Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
 340 345 350
 Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
 355 360 365
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<211> 823

<212> DNA

<213> Homo sapiens

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<211> 480

<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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3202

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<212> PRT

<213> Homo sapiens

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Thr Ile Tyr Gly	Thr Glu Ser Tyr	Val Val Ser Leu	Thr Thr Asn Cys
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Ser Gly Lys Gly	Ile Leu Ser Gly	His Ala Asp Gly	Thr Ile Val Arg
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Tyr Phe Phe Asp	Asp Glu Gly Ser	Gly Glu Ser Gln	Gly Lys Leu Val
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Asn His Pro Cys	Pro Pro Tyr Ala	Leu Ala Trp Ala	Thr Asn Ser Ile
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Val Ala Ala Gly	Cys Asp Arg Lys	Ile Val Ala Tyr	Gly Lys Glu Gly
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His Met Leu Gln	Thr Phe Asp Tyr	Ser Arg Asp Pro	Gln Glu Arg Glu
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Phe Thr Thr Ala	Val Ser Ser Pro	Gly Gly Gln Ser	Val Val Leu Gly
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Ser Tyr Asp Arg	Leu Arg Val Phe	Asn Trp Ile Pro	Arg Arg Ser Ile
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Trp Glu Glu Ala	Lys Pro Lys Glu	Ile Thr Asn Leu	Tyr Thr Ile Thr
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Cys Gly Gly Val	Glu Gln Phe Asp	Cys Cys Leu Arg	Arg Ser Ile Tyr
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Lys Asn Lys Phe	Glu Leu Thr Tyr	Val Gly Pro Ser	Gln Val Ile Val
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Tyr Glu Val Glu	Glu Val Lys Ile	Leu Gly Lys Glu	Arg Tyr Leu Val
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Arg Gly Thr Glu	Asp Asn Lys Lys	Leu Ala Tyr Leu	Ile Asp Ile Lys
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Thr Ile Ala Ile	Val Asp Leu Ile	Gly Gly Tyr Asn	Ile Gly Thr Val
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Lys Leu Leu Phe	Arg Asp Arg Lys	Leu Arg Leu His	Leu Tyr Asp Ile

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<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

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 tctgcggagt acagtgcagt gggtcggctg ggacaccccc aggcagcaga tcttggtatt
 900
 gggctgagga aagagcactg cgcttgaggt cagtaagatc t
 941

<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

Ala	Arg	Gln	Gly	Thr	Tyr	Ile	Cys	Glu	Ile	Arg	Leu	Lys	Gly	Glu	Ser
1				5					10					15	
Gln	Val	Phe	Lys	Lys	Ala	Val	Val	Leu	His	Val	Leu	Pro	Glu	Glu	Pro
			20					25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
			35				40					45			
Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
	50					55					60				
Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
65					70					75					80
Leu	Arg	Met	Ser	Ala	Glu	Tyr	Ser	Gln	Ser	Trp	Gly	His	Phe	Gln	Asn
				85					90					95	
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
			100					105					110		
Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
	115						120						125		
His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
	130					135						140			
Pro	Glu	Glu	Pro	Arg	Thr	Leu	Val	Thr	Pro	Ala	Ala	Leu	Arg	Pro	Leu
145					150					155					160
Val	Leu	Gly	Gly	Asn	Gln	Leu	Val	Ile	Ile	Val	Gly	Ile	Val	Cys	Ala
				165					170					175	
Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
			180					185					190		
Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
	195						200					205			
Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
	210					215					220				
Glu	Gly	Glu	Val	Asn	Thr	Arg	Phe	Ser	Leu	Lys	His				
225					230					235					

<210> 4029

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

cgcccgccctg ttttggtggtg cgctggacct gctggacctg ctggacatgc aggccagcct
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 120
 ctacatgctg ctgctggtgc tgccgtgcgt ggcgctcagc gaggtcagca tgcagggcga
 180
 gcacatagcg ccgcagaaga tgatgctgta cccggtgctc agtctcgcca ccgtcaatgt
 240
 ggtggggccgt gctggcgcg cccgccaaca tggcgctgtt ccgggacagc cgtgtctcgg
 300
 ccatcttctg. cggcaaaaac gtggtggcg cgcgccacaa ggctgcacc tnntcctgga
 360
 gtaccgcccgc caggtgcgcg acttcccnng ccgcctgcgc tatcactgga gctgcagccg
 420
 ccacccccgc agcgcaactc ggtgccgccc ccgcgcccgc cgctgcacgg cccgcctggg
 480
 ncgccccac atgtctctgc ccacgcgtga cccctggac acgtgacagg gcccgcgcg
 540
 cccccgacac gccctgggg cgagagaca ccgggttggc ttggggcgcg cggtttgc
 600
 gggatgggggt gggggcgggc tcccctaggg acaggtgcct cgagtgcgg tgcctgggg
 660
 cccgcggccg cttcttcac tcaggaatct ctccgaccgc ggatcctcag ccccgctcc
 720
 accagcccgc cccagcgcg gggctctgtt gggaggcctg ggccggagca gagcagagg
 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaagg agggcagtgt gggcgagat
 840
 ctgtccttc ggtgggggccc tctggctcag atttggggcc aaggaggcct ctgtcattt
 900
 aaagactcg
 909

<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

Arg	Pro	Pro	Val	Leu	Gly	Gly	Ala	Gly	Pro	Ala	Gly	Pro	Ala	Gly	His
1				5				10				15			
Ala	Gly	Gln	Pro	Val	Gly	Ala	Ala	Ala	Leu	Arg	Ala	Ala	Ala	Val	Gly
		20					25					30			
Arg	Gly	Pro	His	Leu	Leu	Leu	Leu	His	Ala	Ala	Ala	Gly	Ala	Ala	
		35				40					45				
Val	Arg	Gly	Ala	Gln	Arg	Gly	Gln	His	Ala	Gly	Arg	Ala	His	Ser	Ala
		50				55					60				
Ala	Glu	Asp	Asp	Ala	Val	Pro	Gly	Ala	Gln	Ser	Arg	His	Arg	Gln	Cys
65				70				75						80	
Gly	Gly	Pro	Cys	Trp	Arg	Ala	Pro	Pro	Thr	Trp	Arg	Cys	Ser	Gly	Thr
			85					90						95	
Ala	Val	Ser	Arg	Pro	Ser	Ser	Ser	Ala	Lys	Thr	Trp	Trp	Arg	Ser	Pro
			100					105						110	
Pro	Arg	Pro	Ala	Pro	Xaa	Pro	Gly	Val	Pro	Pro	Pro	Gly	Ala	Arg	Leu

	115		120		125	
Pro	Xaa	Pro	Pro	Ala	Leu	Ser
	130		135		140	
Arg	Asn	Ser	Val	Pro	Pro	Pro
145			150		155	160
Xaa	Pro	Pro	His	Val	Leu	Ala
			165			

<210> 4031

<211> 1406

<212> DNA

<213> Homo sapiens

<400> 4031

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naagctgaga acgcatcttt agctaaactt cgcattgaac gagaaagtgc cttggaaaaa
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ctcaggaaaag aaattgcagg cttcgaacaa cagaaagcaa aagaattagc tcgaatagaa
120
gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
180
actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttaaaa
240
cagcaaatag cagattttacg ggaagatttg aaaagaaagg agaccaaata gtcaagtaca
300
cacagccgtc tcagaagcca gatacaaatg ttagtcagag agaacacaga cctccgggaa
360
gaaataaaaag tgatggaaaag attccgactg gatgcctgga agagagcaga agccatagag
420
agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
480
agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
540
ggcaatccac ctcgaagatc caagtctgca cctcctcgtg atttaggcaa tttggataag
600
ggacaggctg cctctcccag ggagccactt gaaccactga acttcccaga tcttgaatat
660
aaagaggagg aggaagacca agacatacag ggagaaatca gtcacctga tggaaagggtg
720
gaaaagggtt ataagaatgg gtgccgtgtt atactgtttc ccaatggaac tcgaaaggaa
780
gtgagtgcag atgggaagac catcactgtc actttcttta atggtgacgt gaagcagggtc
840
atgccagacc aaagagtgat ctactactat gcagctgccc agaccactca cagacatac
900
ccggaggggac tggaagtctt acattttctca agtggaacaa tagaaaaaca ttaccagat
960
ggaagaaaag aaatcacgtt tcctgaccag actgttaaaa acttatttcc tgatggacaa
1020
gaagaaagca ttttcccaga tgggtacaatt gtcagagtac aacgtgatgg caacaaactc
1080
atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
1140
ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
1200

```

ggtcggataa gagttaagga caaggagggt aatgtgctaa tggacacgga gctgtgacga
 1260
 tcctcatgtg atcatgaagt aacagtaact gactttttat gttaaaaaat gtacatttac
 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
 1380
 gtttaccctg tggcaaaaaa aaaaaa
 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

Xaa	Ala	Glu	Asn	Ala	Ser	Leu	Ala	Lys	Leu	Arg	Ile	Glu	Arg	Glu	Ser	1	5	10	15
Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys	20	25	30	
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg	35	40	45	
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala	50	55	60	
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys	65	70	75	80
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys	85	90	95	
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val	100	105	110	
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe	115	120	125	
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu	130	135	140	
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn	145	150	155	160
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr	165	170	175	
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro	180	185	190	
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu	195	200	205	
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu	210	215	220	
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val	225	230	235	240
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly	245	250	255	
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe	260	265	270	
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr	275	280	285	
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu		290	295	300	
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp				

```

305          310          315          320
Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
          325          330          335
Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
          340          345          350
Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
          355          360          365
Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
          370          375          380
Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
385          390          395          400
Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
          405          410          415
Glu Leu

```

```

<210> 4033
<211> 487
<212> DNA
<213> Homo sapiens

```

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<400> 4033
acgcgtgaag ggacaacttc gcagagttcg gctactgctg acgcgcaggg agtaagcctc
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120
tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
240
tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
aacttccacg gccggccctc aatggcttcc tttctctccc acaagagcgc tgggccaagc
360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgctc
420
ggaccagacg ggaggcctgg cgcccccgcc cgccatgtgt ggggagcggg cctctccaag
480
ccagtcc
487

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<210> 4034
<211> 94
<212> PRT
<213> Homo sapiens

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<400> 4034
Met Asn Thr Gly Ile Phe Pro Gly Trp Leu Leu Thr Ala Glu Gln Arg
1          5          10          15
Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
          20          25          30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
          35          40          45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

```

```

      50              55              60
Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
65              70              75              80
Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
      85              90

```

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

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<400> 4035
nnncttaata gcagtgttat ggaattccat gtgaggcaca aacattcaga caatcctagc
60
aatgttctgga aatcctatgt gagggacaaa cattcagacc ccagcagcaa tgttctggaa
120
tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaatc ctatctgagg
180
tataaacact cagaacctca tagcagtgtt caggaatcct atgtgaggga caaacattca
240
gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
300
agtgttctgga aatccttttt ttttttgaag ctttcaatct ctt
343

```

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

```

<400> 4036
Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
1      5      10      15
Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
20     25     30
Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
35     40     45
Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
50     55     60
Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
65     70     75     80
Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
85     90     95
Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
100    105    110
Ile Ser

```

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

tttttttttt ttttttttgg aaagagaaaa tatatttact attcattaag tggatgcggg
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 tcatcataaa ggtcttcatt ctcacctctt tcacgttgag taggctgagg aggaggaaga
 120
 ggaggagaag ggggttggctt tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
 tacgtggacc tgtagccagg tgggcataga taaaaggaaa tattgtttgc cagtccttgc
 240
 tggaatgatg cctttacaca tctgtctgat ctgattgctc cactgttttc tgactttctt
 300
 tccctttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
 360
 agatacaact gcatggctcc ttccttgccg caagagaggt ttgcctttaa gatctcacca
 420
 aagcccagca aaccactgag gccttgattt cagctgagca gcaagaatga agccagtgga
 480
 atggtggccc cggctgtcca ggagaagaag gtgaaaaagc ggggtgtcctt cgcagacaac
 540
 caggggctgg ccctgacaat ggtcaaagtg ttctcggaat tcgatgaccc gctagatatg
 600
 ccattcaaca tcaccgagct cctagacaac attgtgagct tgacgacagc agagagcgag
 660
 agctttgttc tggatttttc ccagccctct gcagattact tagactttag aaatcgactt
 720
 caggccgacc acgtctgcct t
 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

Met	Ala	Val	Asp	Ile	Glu	Tyr	Arg	Tyr	Asn	Cys	Met	Ala	Pro	Ser	Leu
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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
			35				40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
			50				55				60				
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
					70				75					80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
				85					90				95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100					105					110		
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
			115				120						125		
Ala	Asp	His	Val	Cys	Leu										
					130										

<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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gctgcgcgcg tcggagaggc tcctggggaa actcccacgg cccagggact ttcgaaagca
120
gagcgaggag ccctcgacag cgctagtctg cgagtgcgag ctcagcccgg cacctgttcc
180
tcacgcgccg ccgccttccc acccctcgga ccgcgcgcgc tcgcggcgcc cgcctgttcc
240
tgcatgaat ccggccctag gcaaccagac ggacgtggcg ggcttctctg gccaacagca
300
gcgaggcgct ggagcgagcc gtgcgctgct gcaccaggcg gtccgtgggt accgacgacg
360
gcttcgcgga gggaggcccg gacgagcgta gcctgtacat aatgcgcgtg gtgcagatcg
420
cggtcatgtg cgtgctctca ctcaccgtgg tcttcggcat cttcttctct ggctgcaatc
480
tgctcatcaa gtccgagggc atgatcaact tcctcgtgaa ggaccggagg ccgtctaagg
540
aggtggaggc ggtggtcgtg gggccctact gaccgcctct ctgccccgcg ggcaaccgct
600
cccacgcctg cccactttgc tagcccggtt gtgcccctca ctatcagaga ctgggcgaag
660
caaacctgtc ggagtcaatt atttctctcg acttcggcct ttcggaaaga agcgaccggt
720
ttctccctcg ccctctgaaa gtccctcatgc ctggcagtcg gaggagagcg cccagactct
780
gaactcagca gaaagtggca agaagaggcg gattagggcg cagaactttg gaagctgcta
840
cttacttggg atgcggggag accgacgggt cgaaggccct tctccacccg caggtgggccc
900
aagctctggg ggcaggtgga gagggcgggc aggggagaga cccagcggca ctgatcgctt
960
tgtgaccgga agagtgcact gttaaaagcc acgcagcaga ctcatggggt ctcacaaatc
1020
cgtgtccggg tcgcgtccca ctcttctctt gctccccccc tgcccctgga ggggaggggc
1080
gataaatacc tttgattgta acgtgccgtt ttaagagggt ttgtgtttgt ttgcttgaat
1140
acaaatgttt gataagtctt tttctgcccc agtggcctgt ttgcctgcct gaggagtta
1200
agttttgtca ttgtggaaga aggggtgggg ggagggggag cctgcgaatt tgaacgggg
1260
gagttgtttc ttttagtgca tttccactg ggtcttttgg gaggcgtcta gcgttctctg
1320
tgccctggg acaaagaccc agaatagaac tcgtagctcg tgactgcacg gtttacgcca
1380
caaaagtgtc cttgacatcc gtgacaccgt tttgactttt tgtttttttc ttatttaaca
1440
tttcttaat aaatgcaaca ttttagcgtt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa
1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
Lys Ser Leu Ala Ala Ala Arg Val Gly Glu Ala Pro Gly Glu Thr Pro
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Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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60
ggtgagattc cagctgaatt aagggcggcg gccactgacc accggcagga gctaattgaa
120
tgtgttgcca attcagatga acagcttggt gagatgtttc tggaagaaaa aatcccctcg
180
atttctgatt taaagctagc aattcgaaga gctactctga aaagatcatt tactcctgta
240
tttttgggaa ggccttgaa gaacaaagga gttagcctc ttttagatgc tgttttagaa
300
tacctcccaa atccatctga agtcagaac tatgctattc tcaataaaga ggatgactca
360
aaagagaaaa ccaaaatcct aatgaactcc agtagagaca attcccaccc atttgtaggc
420
ctggctttta aactggaggt aggtcgattt ggacaattaa cttatgttcg cagttatcag
480
ggagagctaa agaaggggtga caccatctat aacacaagga caagaaagaa agtacggttg
540
caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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Asp Leu Ile Glu Glu Arg Ala Ile Tyr Phe Asp Gly Asp Phe Gly Gln
 1             5             10             15
Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Ala Thr
      20             25             30
Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
      35             40             45
Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
      50             55             60
Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
      65             70             75             80
Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
      85             90             95
Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
      100            105            110
Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
      115            120            125
Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
      130            135            140
Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
      145            150            155            160
Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
      165            170            175
Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
      180            185            190

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<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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<210> 4044

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4044

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		20					25				30				
Arg	Lys	Glu	Glu	Glu	Leu	Arg	Arg	Lys	Ala	Leu	Glu	Glu	Lys	Arg	Arg
		35					40				45				
Lys	Glu	Glu	Leu	Val	Lys	Lys	Arg	Ile	Glu	Leu	Lys	His	Asp	Lys	Lys
	50					55				60					
Ala	Arg	Ala	Met	Ala	Lys	Arg	Thr	Lys	Asp	Asn	Phe	His	Gly	Tyr	Asn
65				70					75					80	
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			85				90					95			
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		100					105					110			
Glu	Phe	Leu	Glu	Tyr	Asn	His	Ala	Glu	Ser	Glu	Gln	Glu	Tyr	Glu	Glu
	115					120					125				
Glu	Gln	Glu	Pro	Pro	Lys	Val	Glu	Ser	Lys	Pro	Lys	Val	Ser	Leu	Lys
	130					135				140					
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			165				170					175			
Glu	Arg	Pro	Met	Thr	Ala	Glu	Glu	Leu	Arg	Glu	Arg	Glu	Phe	Leu	Glu
		180					185					190			
Arg	Lys	His	Arg	Arg	Lys	Lys	Leu	Glu	Thr	Asp	Gly	Lys	Leu	Pro	Pro
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<210> 4045

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 4045

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<210> 4046

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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			20					25					30		
His	Leu	Gln	Asn	Leu	Glu	Asn	Ser	Ala	Phe	Thr	Ala	Asp	Arg	His	Lys
	35					40					45				
Lys	Arg	Lys	Leu	Leu	Glu	Asn	Ser	Thr	Leu	Asn	Ser	Lys	Leu	Leu	Lys
	50					55					60				
Val	Asn	Gly	Ser	Thr	Thr	Ala	Ile	Cys	Ala	Thr	Gly	Leu	Arg	Asn	Leu
65					70				75					80	
Gly	Asn	Thr	Cys	Phe	Met	Asn	Ala	Ile	Leu	Gln	Ser	Leu	Ser	Asn	Ile
			85					90					95		
Glu	Gln	Phe	Cys	Cys	Tyr	Phe	Lys	Glu	Leu	Pro	Ala	Val	Glu	Leu	Arg
			100					105					110		
Asn	Gly	Lys	Thr	Ala	Gly	Arg	Arg	Thr	Tyr	His	Thr	Arg	Ser	Gln	Gly
			115				120					125			
Asp	Asn	Asn	Val	Ser	Leu	Val	Glu	Glu	Phe	Arg	Lys	Thr	Leu	Cys	Ala
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			165					170					175		
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			180					185					190		
Phe	Arg	Ala	Val	Ser	Thr	Val	Phe	Pro	Ala	Gln	Gln	Phe	Cys	Arg	Arg
			195				200					205			
Ile	Leu	Leu	Cys	Leu	Gln	Val	Xaa	Lys	Cys	Cys	Ile	Asn	Gly	Ala	Ser
	210					215						220			
Thr	Val	Val	Thr	Ala	Ile	Phe	Gly	Gly	Ile	Leu	Gln	Asn	Glu	Val	Asn
225					230					235					240
Cys	Leu	Ile	Cys	Gly	Thr	Glu	Ser	Arg	Lys	Phe	Asp	Pro	Phe	Leu	Asp
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<211> 809
<212> DNA
<213> Homo sapiens
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720
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<210> 4048
<211> 118
<212> PRT
<213> Homo sapiens

<400> 4048
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Val Ala Ile Gly Phe Thr Gly Gly Leu Val Phe Met Tyr Val Gln Cys
35 40 45
Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
50 55 60
Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
65 70 75 80
Phe Ser Cys Asn Val Asn Thr Asp Ile Lys Asp Ala Val Val Val Pro
85 90 95
Val Pro Gln Thr Gly Ala Asn Ser Leu Pro Ser Ala Glu Gly Gly Pro
100 105 110
Pro Glu Val Val Ser Val
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<210> 4049
<211> 1211
<212> DNA
<213> Homo sapiens

<400> 4049
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600

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<211> 403

<212> PRT

<213> Homo sapiens

<400> 4050

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		20					25					30			
Phe	Glu	Gly	His	Lys	Leu	Ile	Ala	His	Trp	Phe	Arg	Gly	Tyr	Leu	Ile
	35					40					45				
Ile	Val	Ser	Arg	Asp	Arg	Lys	Val	Ser	Pro	Lys	Ser	Glu	Phe	Thr	Ser
	50				55				60						
Arg	Asp	Ser	Gln	Ser	Ser	Asp	Lys	Gln	Ile	Leu	Asn	Ile	Tyr	Asp	Leu
65				70				75					80		
Cys	Asn	Lys	Phe	Ile	Ala	Tyr	Ser	Thr	Val	Phe	Glu	Asp	Val	Val	Asp
			85					90					95		
Val	Leu	Ala	Glu	Trp	Gly	Ser	Leu	Tyr	Val	Leu	Thr	Arg	Asp	Gly	Arg
	100						105					110			
Val	His	Ala	Leu	Gln	Glu	Lys	Asp	Thr	Gln	Thr	Lys	Leu	Glu	Met	Leu
	115					120					125				
Phe	Lys	Lys	Asn	Leu	Phe	Glu	Met	Ala	Ile	Asn	Leu	Ala	Lys	Ser	Gln
	130					135				140					
His	Leu	Asp	Ser	Asp	Gly	Leu	Ala	Gln	Ile	Phe	Met	Gln	Tyr	Gly	Asp
145				150				155					160		
His	Leu	Tyr	Ser	Lys	Gly	Asn	His	Asp	Gly	Ala	Val	Gln	Gln	Tyr	Ile
			165					170					175		
Arg	Thr	Ile	Gly	Lys	Leu	Glu	Pro	Ser	Tyr	Val	Ile	Arg	Lys	Phe	Leu
		180						185				190			
Asp	Ala	Gln	Arg	Ile	His	Asn	Leu	Thr	Ala	Tyr	Leu	Gln	Thr	Leu	His


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Arg  Gln Ser Leu Ala Asn Ala Asp His Thr Thr Leu Leu Leu Asn Cys
      210              215              220
Tyr  Thr Lys Leu Lys Asp Ser Ser Lys Leu Glu Glu Phe Ile Lys Lys
      225              230              235              240
Lys  Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val
      245              250              255
Leu  Arg Gln Ala Gly Tyr Tyr Ser His Ala Leu Tyr Leu Ala Glu Asn
      260              265              270
His  Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys
      275              280              285
Asn  Tyr Gln Glu Ala Leu Arg Tyr Ile Gly Lys Leu Pro Phe Glu Gln
      290              295              300
Ala  Glu Ser Asn Met Lys Arg Tyr Gly Lys Ile Leu Met His His Ile
      305              310              315              320
Pro  Glu Gln Thr Thr Gln Leu Leu Lys Gly Leu Cys Thr Asp Tyr Arg
      325              330              335
Pro  Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala
      340              345              350
Asn  Ser Glu Glu Phe Ile Pro Ile Phe Ala Asn Asn Pro Arg Glu Leu
      355              360              365
Lys  Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln
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Glu  Lys Asp

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<210> 4051

<211> 1645

<212> DNA

<213> Homo sapiens

<400> 4051

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<210> 4052

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4052

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Gly	Gly	Asn	Ala	Trp	Gly	Gly	Ala	Cys	Leu	Pro	Ala	Pro	Tyr	Gly	Gly
		20					25						30		
Ala	Glu	Gly	Val	Arg	Pro	Pro	Pro	Gly	Pro	Ala	Pro	Leu	Pro	Pro	Gly
		35					40					45			
Pro	Thr	Lys	Pro	Leu	Pro	Pro	Ala	Pro	Pro	Ser	Met	Gly	Ser	Asp	Ser
	50				55					60					
Ser	Gly	Glu	Arg	Ser	Pro	Ser	Pro	Pro	Trp	Pro	Pro	Pro	Pro	Pro	Pro
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 <211> 461
 <212> DNA
 <213> Homo sapiens

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 180
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<210> 4054
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 4054
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 Arg Pro Gly Gly Thr Glu Thr Leu Arg Glu Ala Cys Ala Ala Leu Gly
 35 40 45
 Glu Gly Arg Gly Gly Ser Arg His Ser Cys Pro Arg Arg Val Gly Arg
 50 55 60
 Arg Ser Val Leu Lys Gly Gly Gln Gly Ser Phe Val Leu Asn Arg Glu
 65 70 75 80
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<212> DNA

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<210> 4064

<211> 818

<212> PRT

<213> Homo sapiens

<400> 4064

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Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
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Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
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Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
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Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
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Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
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Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
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Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg
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His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp
      515              520              525
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa
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Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln
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Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys
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Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe
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Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr
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Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys
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Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro
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Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn
      740              745              750
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys
      755              760              765
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly
      770              775              780
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu
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 <211> 696
 <212> DNA
 <213> Homo sapiens

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<210> 4066
 <211> 210
 <212> PRT
 <213> Homo sapiens

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 Phe Pro Leu Leu Leu Asn Cys Phe Gly Gln Pro Gly Thr Lys Trp Ile
 35 40 45
 Pro Phe Ser Tyr Thr Tyr Arg Arg Pro Leu Arg Thr His Tyr Gly Tyr
 50 55 60
 Ile Asn Val Lys Thr Gln Glu Pro Leu Gln Leu Asp Cys Asp Leu Cys
 65 70 75 80
 Ala Ile Val Ser Asn Ser Gly Gln Met Val Gly Gln Lys Val Gly Asn
 85 90 95
 Glu Ile Asp Arg Ser Ser Cys Ile Trp Arg Met Asn Asn Ala Pro Thr

			100						105					110						
Lys	Gly	Tyr	Glu	Glu	Asp	Val	Gly	Arg	Met	Thr	Met	Ile	Arg	Val	Val					
			115						120					125						
Ser	His	Thr	Ser	Val	Pro	Leu	Leu	Leu	Lys	Asn	Pro	Asp	Tyr	Phe	Phe					
			130						135					140						
Lys	Glu	Ala	Asn	Thr	Thr	Ile	Tyr	Val	Ile	Trp	Gly	Pro	Phe	Arg	Asn					
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				165						170					175					
Val	Gly	Ile	Tyr	Pro	Asn	Ala	Gln	Ile	Tyr	Val	Thr	Thr	Glu	Lys	Arg					
			180						185					190						
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<212> DNA

<213> Homo sapiens

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<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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		20					25						30		
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		50				55					60				
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
65					70					75				80	
Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
				85					90				95		
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
			115				120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
		130				135					140				
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          195          200          205
Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
          210          215          220
Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
225          230          235          240
Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
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Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
          260          265          270
Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
          275          280          285
Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
          290          295          300
Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
305          310          315          320
Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
          325          330          335
Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
          340          345          350
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Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
          370          375          380
Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
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His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
          405          410          415
Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
          420          425          430
Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
          435          440          445
Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
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Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
465          470          475          480
Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
          485          490          495
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<211> 714

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
			35					40					45		
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
			50				55				60				
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
65					70					75				80	
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
				85					90					95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
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<212> DNA

<213> Homo sapiens

<400> 4071

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<212> DNA

<213> Homo sapiens

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 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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 35 40 45
 Ser Thr Met Pro Ser Gln Thr Val Leu Pro Pro Glu Pro Val Gln Leu
 50 55 60
 Cys Lys Ser Glu Gln Arg Pro Ser Ser Leu Pro Val Gly Pro Val Leu
 65 70 75 80
 Ala Thr Leu Gly His His Gln Thr Pro Thr Pro Asn Ser Thr Gly Ser
 85 90 95
 Gly His Ser Pro Pro Ser Ser Ser Leu Thr Ser Pro Ser His Val Asn
 100 105 110
 Leu Ser Pro Asn Thr Val Pro Glu Phe Ser Tyr Ser Ser Ser Glu Asp
 115 120 125
 Glu Phe Tyr Asp Ala Asp Glu Phe His Gln Ser Gly Ser Ser Pro Lys
 130 135 140
 Arg Leu Ile Asp Ser Ser Gly Ser Ala Ser Val Leu Thr His Ser Ser
 145 150 155 160
 Ser Gly Asn Ser Leu Lys Arg Pro Asp Thr Thr Glu Ser Leu Asn Ser
 165 170 175
 Ser Leu Ser Asn Gly Thr Ser Asp Ala Asp Leu Phe Asp Ser His Asp
 180 185 190
 Asp Arg Asp Asp Asp Ala Glu Ala Gly Ser Val Glu Glu His Lys Ser
 195 200 205
 Val Ile Met His Leu Leu Ser Gln Val Arg Leu Gly Met Asp Leu Thr
 210 215 220
 Lys Val Val Leu Pro Thr Phe Ile Leu Glu Arg Arg Ser Leu Leu Glu
 225 230 235 240
 Met Tyr Ala Asp Phe Phe Ala His Pro Asp Leu Phe Val Ser Ile Ser
 245 250 255
 Asp Gln Lys Asp Pro Lys Asp Arg Met Val Gln Val Val Lys Trp Tyr

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                260                265                270
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                275                280                285
Tyr Asn Pro Ile Leu Gly Glu Ile Phe Gln Cys His Trp Thr Leu Pro
                290                295                300
Asn Asp Thr Glu Glu Asn Thr Glu Leu Val Ser Glu Gly Pro Val Pro
305                310                315                320
Trp Val Ser Lys Asn Ser Val Thr Phe Val Ala Glu Gln Val Ser His
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His Pro Pro Ile Ser Ala Phe Tyr Ala Glu Cys Phe Asn Lys Lys Ile
                340                345                350
Gln Phe Asn Ala His Ile Trp Thr Lys Ser Lys Phe Leu Gly Met Ser
                355                360                365
Ile Gly Val His Asn Ile Gly Gln Gly Cys Val Ser Cys Leu Asp Tyr
                370                375                380
Asp Glu His Tyr Ile Leu Thr Phe Pro Asn Gly Tyr Gly Arg Ser Ile
385                390                395                400
Leu Thr Val Pro Trp Val Glu Leu Gly Gly Glu Cys Asn Ile Asn Cys
                405                410                415
Ser Lys Thr Gly Tyr Ser Ala Asn Ile Ile Phe His Thr Lys Pro Phe
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<210> 4075

<211> 2492

<212> DNA

<213> Homo sapiens

<400> 4075

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660

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<210> 4076

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4076

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Ala	Gly	Ile	His	Arg	Asn	Leu	Gly	Val	His	Ile	Ser	Arg	Val	Lys	Ser
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Val	Asn	Leu	Asp	Gln	Trp	Thr	Gln	Glu	Gln	Ile	Gln	Cys	Met	Gln	Glu
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Thr	Phe	Arg	Arg	Pro	Gln	Ile	Asp	Pro	Ala	Val	Glu	Gly	Phe	Ile	Arg
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Ala	Phe	Arg	Lys	Glu	Lys	Asp	Asp	Lys	Trp	Lys	Arg	Gly	Ser	Glu	Pro
		115				120						125			
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	130					135					140				
Pro	Gln	Lys	Lys	Glu	Asp	Pro	Gln	Leu	Pro	Arg	Lys	Ser	Ser	Pro	Lys
145				150						155				160	
Ser	Thr	Ala	Pro	Val	Met	Asp	Leu	Leu	Gly	Leu	Asp	Ala	Pro	Val	Ala
			165						170					175	
Cys	Ser	Ile	Ala	Asn	Ser	Lys	Thr	Ser	Asn	Thr	Leu	Glu	Lys	Asp	Leu
		180					185						190		
Asp	Leu	Leu	Ala	Ser	Val	Pro	Ser	Pro	Ser	Ser	Ser	Gly	Ser	Arg	Lys
	195					200						205			
Val	Val	Gly	Ser	Met	Pro	Thr	Ala	Gly	Ser	Ala	Gly	Ser	Val	Pro	Glu
	210					215					220				
Asn	Leu	Asn	Leu	Phe	Pro	Glu	Pro	Gly	Ser	Lys	Ser	Glu	Glu	Ile	Gly
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Lys	Lys	Gln	Leu	Ser	Lys	Asp	Ser	Ile	Leu	Ser	Leu	Tyr	Gly	Ser	Gln
		245							250					255	
Thr	Pro	Gln	Met	Pro	Thr	Gln	Ala	Met	Phe	Met	Ala	Pro	Ala	Gln	Met
		260					265						270		
Ala	Tyr	Pro	Thr	Ala	Tyr	Pro	Ser	Phe	Pro	Gly	Val	Thr	Pro	Pro	Asn
	275						280					285			
Ser	Ile	Met	Gly	Ser	Met	Met	Pro	Pro	Pro	Val	Gly	Met	Val	Ala	Gln
	290					295				300					
Pro	Gly	Ala	Ser	Gly	Met	Val	Ala	Pro	Met	Ala	Met	Pro	Ala	Gly	Tyr

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305          310          315          320
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Thr Thr Gln Gln Ala Gly Tyr Met Ala Gly Met Ala Ala Met Pro Gln
          340          345          350
Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr
          355          360          365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly
          370          375          380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala
385          390          395          400
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys
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<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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<210> 4079
<211> 783
<212> DNA
<213> Homo sapiens
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3266

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 780
 nta
 783

<210> 4080
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4080
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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
 65 70 75 80
 Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
 85 90 95
 His Ala Arg Thr Lys
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<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 480
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<210> 4082
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 4082
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 35 40 45
 Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
 50 55 60
 Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
 65 70 75 80
 Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
 85 90 95
 Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
 100 105 110
 Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
 115 120 125
 Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
 130 135 140
 Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
 145 150 155 160
 Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
 165 170 175
 Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
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 Ile Lys Pro Gly Asp Pro Arg
 210 215

<210> 4083
 <211> 2983
 <212> DNA
 <213> Homo sapiens

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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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			20					25					30		
Val	Tyr	Gly	Leu	Asn	Phe	Ala	Ser	Lys	Glu	Glu	Ala	Thr	Thr	Phe	Ser
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Asn	Ala	Met	Leu	Phe	Ala	Leu	Asn	Ile	Met	Asn	Ser	Gln	Glu	Gly	Gly
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Pro	Ser	Ser	Gln	Arg	Gln	Val	Gln	Asn	Gly	Pro	Ser	Pro	Asp	Glu	Met
65				70					75					80	
Asp	Ile	Gln	Arg	Arg	Gln	Val	Met	Glu	Gln	His	Gln	Gln	Gln	Arg	Gln
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<211> 2673
<212> DNA
<213> Homo sapiens
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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
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Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
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Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
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Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
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Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
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Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
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Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
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Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

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Tyr Lys Glu Leu Gly His Leu Thr His Gln Gln Ala Arg Glu Val Lys		
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Ser Cys Pro Leu Lys Ala Asp Ser Lys Ala Val Ile Arg Glu Ile Gln		
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Ser Ile Asp Gly Ser Ile Val Leu Pro Leu Xaa Pro Gly Ala Pro Gln		
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Arg His Trp Pro Trp Ser Thr His Xaa Cys Leu Thr Gly Asp Gly Leu		
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465	470	475
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515	520	525
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530	535	540
Thr Ser Lys Leu Ser Ser Ile Gln Cys Ile Cys His Val Ile Lys Gln		
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Gly Val Lys Phe Ser Asp Phe Gln Ala Thr Leu Gln Gly Leu Leu Leu		
595	600	605
Ala Gly Cys Phe Leu Phe Ile Ser Arg Ser Lys Pro Leu Lys Thr Leu		
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 660 665 670
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 675 680 685
 Tyr Ile Met Ala Met Ala Met Gln Met Ala Thr Phe Ala Ile Asn Tyr
 690 695 700
 Lys Gly Pro Pro Phe Met Glu Ser Leu Pro Glu Asn Lys Pro Leu Val
 705 710 715 720
 Trp Ser Leu Ala Val Ser Leu Leu Ala Ile Ile Gly Leu Leu Leu Gly
 725 730 735
 Ser Ser Pro Asp Phe Asn Ser Gln Phe Gly Leu Val Asp Ile Pro Val
 740 745 750
 Glu Phe Lys Leu Val Ile Ala Gln Val Leu Leu Leu Asp Phe Cys Leu
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<210> 4087

<211> 959

<212> DNA

<213> Homo sapiens

<400> 4087

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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
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Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
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Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
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Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
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Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
		100						105					110		
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		165							170					175	
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
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Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
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Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Val	Ser	Ser	Ser	Leu	Glu	Ala	Gln
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225					230					235				240	
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<210> 4089
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
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<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

<400> 4091
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<210> 4092

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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      20           25           30
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      35           40           45
Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
      50           55           60
Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
65           70           75           80
Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
      85           90           95
Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
      100           105           110
Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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720

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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
		50				55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
65					70					75				80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85						90					95	
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100						105					110	
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
		130					135					140			
Tyr	Ala	Val	Thr	Phe	Asp	Phe	Glu	Ser	Val	Glu	Ser	Thr	Val	Glu	Ser

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145          150          155          160
Ser Val Asp Lys Ser Lys Pro Trp Ser Arg Ser Ile Glu Asp Leu His
          165          170          175
Arg Gly Ser Asn Leu Pro Ser Pro Val Gly Asn Ser Val Ser Arg Ser
          180          185          190
Gly Arg His Ser Ala Leu Arg Tyr Asn Thr Leu Pro Ser Arg Arg Thr
          195          200          205
Leu Lys Asn Ser Arg Leu Val Ser Lys Lys Asp Asp Val His Val Cys
          210          215          220
Ile Met Cys Leu Arg Ala Ile Met Asn Tyr Gln Tyr Gly Phe Asn Met
225          230          235          240
Val Met Ser His Pro His Ala Val Asn Glu Ile Ala Leu Ser Leu Asn
          245          250          255
Asn Lys Asn Pro Arg Thr Lys Ala Leu Val Leu Glu Leu Leu Ala Ala
          260          265          270
Val Cys Leu Val Arg Gly Gly His Glu Ile Ile Leu Ser Ala Phe Asp
          275          280          285
Asn Phe Lys Glu Val Cys Gly Glu Lys Gln Arg Phe Glu Lys Leu Met
          290          295          300
Glu His Phe Arg Asn Glu Asp Asn Asn Ile Asp Phe Met Val Ala Ser
305          310          315          320
Met Gln Phe Ile Asn Ile Val Val His Ser Val Glu Asp Met Asn Phe
          325          330          335
Arg Val His Leu Gln Tyr Glu Phe Thr Lys Leu Gly Leu Asp Glu Tyr
          340          345          350
Leu Asp Lys Leu Lys His Thr Glu Ser Asp Lys Leu Gln Val Gln Ile
          355          360          365
Gln Ala Tyr Leu Asp Asn Val Phe Asp Val Gly Ala Leu Leu Glu Asp
          370          375          380
Ala Glu Thr Lys Asn Ala Ala
385          390

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<210> 4095

<211> 253

<212> DNA

<213> Homo sapiens

<400> 4095

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60
agggtcagat agtgggggggt gggttcagct ccactgtcca ggtgaggaaa ctgaggctga
120
agagagatca agtagcatcc ccagcgaaat ctgaggcctc tggaggcgcc tgtgcacgtg
180
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240
tctgtgcacg cgt
253

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<210> 4096

<211> 83

<212> PRT

<213> Homo sapiens

<400> 4096

Met Gly Gly Gly Glu Gln Ala Ser Ala Gly Arg Val Pro Lys Arg Gln
 1 5 10 15
 Pro Arg Glu Gln Gly Gln Ile Val Gly Gly Phe Ser Ser Thr Val
 20 25 30
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
 50 55 60
 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
 65 70 75 80
 Cys Ala Arg

<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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 120
 cgtgctgtcc tcaattgttc tacaatgagt gccaaatctg ctatcagcaa ggaaattttt
 180
 gcacctcttg atgaaaggat gctgggagct gtccaagtca agaggaggac aaagaaaaag
 240
 attcctttct tggcaactgg aggtcaaggc gaatatattaa cttatatctg cctgtcagt
 300
 acaacaaga aaccacaca ggcgtccatc acaaaggcca aacagtttga aggtccaca
 360
 tcatttgttc ggagatcaca gtggatgctc gagcagcttc gccagggttaa tggatcgat
 420
 cctaattggg attcggcaga gtttgatttg ttgtttgaaa atgcttttga ccagtgggta
 480
 gccagcacag cgtcagaaaa atgcaccttc ttccagatcc tccaccatac ctgccagagg
 540
 tacctcacgg acaggaagcc agagtattatt aactgccaat ccaaaattat gggaggaaac
 600
 agcatcctcc attcagctgc tgacagcgtg accagcgcag tgcagaaggc aagccaggcc
 660
 ttgaatgagc gtggagagcg attaggccga gcagaggaga agacagaaga cctgaagaac
 720
 agcggccagc agtttgaga aactgcgcac aagcttgcca tgaagcaca atgttgagaa
 780
 actgcctatc ctggtgactc ttcttaagag aaactgaaga gtttgttcag cagtttttac
 840
 aagaattcgg gacctccgct tgcttctttt tttccaatat ttggacactt agagtgggtt
 900
 ttgttttttc ttttcagatg ttaatgtgaa agaaagggtg ttgcattttt acatttccct
 960
 aatgatcttg ctaataaatg ctacaatagc atcagcttca ttttgggttt ttgcctcctc
 1020

ccactgtgtg tatgtgtgta tatgtatgtt ttgaatatgt tttctttatt aaaaaatatt
 1080
 ttttgtagtt tgaatatgaa atttggacca aatgataaac tgcgctgagt ctaaactggc
 1140
 aacatgtatt tttttctctg atattaagca ggaaggcatt ttaatgtggt gacatcagat
 1200
 gttatttttc ctagatgaaa ataaaagtca agcagtgatt agtttcactc actgtcctag
 1260
 ctacacttaa tttgaagatt aaaattctac attgtggaaa acaattgaat ttattgggaa
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 1380
 gttca
 1385

<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

Ser	Gly	Ala	Arg	Ser	Pro	Glu	Pro	Arg	Ala	Gly	Gln	Pro	Pro	Gly	Glu
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Glu	Pro	Arg	Ala	Leu	Gly	Arg	Val	Pro	Arg	Thr	Gly	Thr	Ala	Gly	Ala
			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
		35					40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
	50				55					60					
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
65					70					75					80
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90						95	
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
	115					120						125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
	130					135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
145					150					155					160
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
			165						170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
		180						185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
	195					200						205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
	210					215					220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
225					230					235					240
Ser	Ala	Gln	Gln	Phe	Ala	Glu	Thr	Ala	His	Lys	Leu	Ala	Met	Lys	His
			245					250						255	

Lys Cys

<210> 4099

<211> 511

<212> DNA

<213> Homo sapiens

<400> 4099

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120
ttaaacaata aaaaattgta taatggaatt ggatcagggg gttcccaaaa ccccttcac
180
tgaggtttgg caattcactg agaaggactc acaggactca gcagatagtc atacttgggg
240
ctttgattta ttacatttaa tacagcaaaa agacacaaag caacatttga gaaaggaaaa
300
ggtgcatgtg tcaaagtctg gaggaagcca ggcacaagct acaggagtca tctcctgtgt
360
agctagcagg atatgcttaa ttccccagc ctcaaatttt gacgacacat gtgcaatgtt
420
gtctacctta ccagagtttc attagaggct cagcacccat gttttcgatg gaggctagtc
480
acataggcaa cctctcctct ccctcacgcg t
511

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<210> 4100

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4100

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Met Glu Leu Asp Gln Gly Val Pro Lys Thr Pro Phe Thr Glu Val Trp
 1             5             10             15
Gln Phe Thr Glu Lys Asp Ser Gln Asp Ser Ala Asp Ser His Thr Trp
      20             25             30
Gly Phe Asp Leu Leu His Leu Ile Gln Gln Lys Asp Thr Lys Gln His
      35             40             45
Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
      50             55             60
Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
      65             70             75             80
Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
      85             90             95
Pro Glu Phe His
      100

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<210> 4101

<211> 536

<212> DNA

<213> Homo sapiens

<400> 4101

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 120
 ccaggaaaga tggcacacgg cagacgacga caggaaggac acctgctccc cacccttccc
 180
 gggaccccg ccatgtgcaaa attcgagctg gggctctgag ctgcttggag agacccaggg
 240
 cctcttgctc cacagcctgc aaggctctgag caggcaacgg ccctggggcg gtgaggcccc
 300
 cgcttggtca ctccccgcgc ccccatgca ggcagtggag gggaggacac gcaggaggac
 360
 cagacgctaa aggtgtaaac gggcagccgt ggcactctc acctctcaat aaataagata
 420
 aataactaaa taaataaaca actaaataaa gacatgaagg aatggatgca gagacgtgaa
 480
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

Met	Cys	Leu	Leu	Ser	Trp	Thr	Arg	Ile	Ala	Val	Trp	Gly	Pro	Ser	Ala
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Arg	Val	Cys	Thr	Arg	Tyr	Lys	Ile	Gln	Glu	Arg	Trp	His	Thr	Ala	Asp
			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35				40						45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
		50				55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
				85					90					95	
Glu	Gly	Arg	Thr	Arg	Arg	Arg	Thr	Arg	Arg						
			100					105							

<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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 120
 gaggaggaag gcggtgacga gtctgacctg agttcggaat ccagcattaa gaagaaatct
 180
 caagagggaaa ggaaagaccg acagtccctg gataagccag ccaggaaaag gaggcggaga
 240

agtagaaaaga agcccagcgg tgcctcgggt tctgagtcgt ataagtcac tgcaggaagc
300
gctgagcaga cggcaccagg agacagcaca gggtagatgg aagtttctct ggactccctg
360
gatctccgag tcaaaggaat tctgtcttca caagcagaag ggttgccaa cggctccagat
420
gtgctggaga cagacggcct ccaggaagtg cctctctgca gctgccggat ggaaacaccg
480
aagagtcgag agatcaccac actggccaac aaccagtgc tggctacaga gagcgtggac
540
catgaattgg gccggtgcac aaacagcgtg gtcaagtatg agctgatgcg cccctccaac
600
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720
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840
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900 cgggcagtg tnnccgggc caccactctc ggaggacgac aagctgcagg 960
gtgcagctc ccacgntgcc cgagggttt gatccaacgg gacctgctgg gcttgggagg
1020
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1140
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1320
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 2340
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 2520
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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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Ser	Glu	Ala	Asp	Arg	Ala	Gln	Lys	Met	Asp	Gly	Glu	Ser	Glu	Glu	Glu
			20					25					30		
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35					40					45			
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50						55				60				
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75				80
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Ser
				85					90				95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Tyr
		100						105					110	
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile
		115					120					125		Leu
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Thr
		130				135					140			
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Pro
145				150						155				160
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala
			165						170					175
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Lys
		180						185					190	
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Cys
		195					200					205		
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly
		210				215					220			Cys
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu
225				230						235				240
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn
			245						250					255
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys
		260						265					270	Glu
Val	Thr	Ile	Ala	Lys	Ala	Asp	Thr	Thr	Ser	Thr	Val	Thr	Pro	Pro
		275					280					285		
Gly	Gln	Glu	Lys	Gly	Ser	Ala	Xaa	Gly	Gly	Arg	Ala	Asp	Thr	Thr
		290				295					300			Thr
Gly	Ser	Ala	Xaa	Pro	Gly	His	His	Ser	Arg	Arg	Thr	Thr	Ser	Cys
305				310						315				320
Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro
				325					330					Ala
Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys
		340					345					350		Glu
Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys
		355					360					365		Lys
Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly
		370				375					380			Glu
Leu	Gln	Lys	Val	Leu	Leu	Met	Leu	Val	Asp	Gly	Ile	Asp	Pro	Asn
385				390						395				Phe
Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Glu
			405						410				415	
Ala	Gly	His	Val	Asp	Ile	Cys	His	Met	Leu	Val	Gln	Ala	Gly	Ala
		420						425					430	Asn
Ile	Asp	Thr	Cys	Ser	Glu	Asp	Gln	Arg	Thr	Pro	Leu	Met	Glu	Ala
		435					440					445		Ala
Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly
		450				455					460			Ala
Leu	Val	Asp	Pro	Lys	Asp	Ala	Glu	Gly	Ser	Thr	Cys	Leu	His	Leu
465				470						475				Ala
Ala	Lys	Lys	Gly	His	Tyr	Glu	Val	Val	Gln	Tyr	Leu	Leu	Ser	Asn
			485						490					Gly
Arg	Met	Asp	Val	Asn	Cys	Gln	Asp	Asp	Gly	Gly	Trp	Thr	Pro	Ile

၁၁၀၈

930 935 940
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 945 950 955 960
 Gln Pro Lys Gly Ser Phe Gly Ala Ala Pro Pro Ala Ser Trp Arg Gly
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<210> 4105
 <211> 775
 <212> DNA
 <213> Homo sapiens

<400> 4105
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 180
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<210> 4106
 <211> 186
 <212> PRT
 <213> Homo sapiens

<400> 4106
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 Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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Ser Trp Cys Leu His Ser Thr Ile Gly Cys Arg Ser Ala Ser Arg Lys				80
	85		90	95
His Ala Asn Lys Val Lys Val Leu Asp Ala Pro Val Pro Asp Cys Leu				
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Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala				
	115		120	125
Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro				
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Leu Leu Pro Ala Phe Thr Val Trp Cys Gly Ser Phe Gln Val Thr Thr				
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<210> 4107

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<210> 4108

<211> 273

<212> PRT

<213> Homo sapiens

<400> 4108

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Val	Gln	Leu	Asp	Ala	Gln	Ala	Pro	Ser	Ser	Cys	Ser	Thr	Glu	Ala	Gln
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Gly	Thr	Val	Gly	Arg	Leu	Asn	Ile	Thr	Val	Val	Gln	Ala	Lys	Leu	Ala
		50				55					60				
Lys	Asn	Tyr	Gly	Met	Thr	Arg	Met	Asp	Pro	Tyr	Cys	Arg	Leu	Arg	Leu
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Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
			85					90					95		
Pro	Arg	Trp	Asn	Lys	Val	Ile	His	Cys	Thr	Val	Pro	Pro	Gly	Val	Asp
			100					105					110		
Ser	Phe	Tyr	Leu	Glu	Ile	Phe	Asp	Glu	Arg	Ala	Phe	Ser	Met	Asp	Asp
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Arg	Ile	Ala	Trp	Thr	His	Ile	Thr	Ile	Pro	Glu	Ser	Leu	Arg	Gln	Gly
	130					135					140				
Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
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Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
			165					170						175	
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
		180						185					190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
		195					200					205			
Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

210		215		220	
Gln Pro Arg Cys Ser Glu Glu Asp Leu Lys Ala Ile Gln Asp Met Phe					
225		230		235	240
Pro Asn Met Asp Gln Glu Val Ile Arg Ser Val Leu Glu Ala Gln Arg					
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<210> 4109

<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<210> 4110

<211> 375

<212> PRT

<213> Homo sapiens

<400> 4110

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		20						25					30		
Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
		35					40					45			
His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
		50				55				60					
Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
65				70					75					80	
Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
			85					90					95		
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		100					105						110		
Ala	Ala	Asp	Leu	Ser	Glu	Ala	Glu	Pro	Thr	Leu	Thr	His	Met	Ser	Ile
		115					120					125			
Thr	Arg	Leu	His	Glu	Gln	Lys	Leu	Val	Gln	His	Val	Val	Ser	Gln	Asn
		130				135				140					
Cys	Asp	Gly	Leu	His	Leu	Arg	Ser	Gly	Leu	Pro	Arg	Thr	Ala	Ile	Ser
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Glu	Leu	His	Gly	Asn	Met	Tyr	Ile	Glu	Val	Cys	Thr	Ser	Cys	Val	Pro
			165					170					175		
Asn	Arg	Glu	Tyr	Val	Arg	Val	Phe	Asp	Val	Thr	Glu	Arg	Thr	Ala	Leu
		180					185					190			
His	Arg	His	Gln	Thr	Gly	Arg	Thr	Cys	His	Lys	Cys	Gly	Thr	Gln	Leu
		195				200					205				
Arg	Asp	Thr	Ile	Val	His	Phe	Gly	Glu	Arg	Gly	Thr	Leu	Gly	Gln	Pro
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<211> 2599
<212> DNA
<213> Homo sapiens
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			20					25					30		
Leu	Arg	Glu	Ala	Ala	Thr	Gln	Ala	Gln	Gln	Thr	Leu	Gly	Ser	Thr	Ile
			35				40					45			
Asp	Lys	Ala	Thr	Gly	Ile	Leu	Leu	Tyr	Gly	Leu	Ala	Ser	Arg	Leu	Arg
	50					55					60				
Asp	Thr	Arg	Arg	Leu	Ser	Phe	Leu	Val	Ser	Tyr	Ile	Ala	Ser	Lys	Lys
65					70					75				80	
Ile	His	Thr	Glu	Pro	Gln	Leu	Ser	Ala	Ala	Leu	Glu	Tyr	Val	Arg	Ser
				85					90					95	
His	Pro	Leu	Asp	Pro	Ile	Asp	Thr	Val	Asp	Phe	Glu	Arg	Glu	Cys	Gly
			100					105					110		
Val	Gly	Val	Ile	Val	Thr	Pro	Glu	Gln	Ile	Glu	Glu	Ala	Val	Glu	Ala
			115				120					125			
Ala	Ile	Asn	Arg	His	Arg	Pro	Gln	Leu	Leu	Val	Glu	Arg	Tyr	His	Phe
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Asn	Met	Gly	Leu	Leu	Met	Gly	Glu	Ala	Arg	Ala	Val	Leu	Lys	Trp	Ala
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Asp	Gly	Lys	Met	Ile	Lys	Asn	Glu	Val	Asp	Met	Gln	Val	Leu	His	Leu
				165					170					175	
Leu	Gly	Pro	Lys	Leu	Glu	Ala	Asp	Leu	Glu	Lys	Lys	Phe	Lys	Val	Ala
			180					185					190		
Lys	Ala	Arg	Leu	Glu	Glu	Thr	Asp	Arg	Arg	Thr	Ala	Lys	Asp	Val	Val
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Arg	Gly	Glu	Ala	Leu	Lys	Phe	His	Lys	Pro	Gly	Glu	Asn	Tyr	Lys	Thr
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Pro	Gly	Tyr	Val	Val	Thr	Pro	His	Thr	Met	Asn	Leu	Leu	Lys	Gln	His
				245					250					255	
Leu	Glu	Ile	Thr	Gly	Gly	Gln	Val	Arg	Thr	Arg	Phe	Pro	Pro	Glu	Pro
			260					265					270		
Asn	Gly	Ile	Leu	His	Ile	Gly	His	Ala	Lys	Ala	Ile	Asn	Phe	Asn	Phe
	275					280						285			
Gly	Tyr	Ala	Lys	Ala	Asn	Asn	Gly	Ile	Cys	Phe	Leu	Arg	Phe	Asp	Asp
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Thr	Asn	Pro	Glu	Lys	Glu	Glu	Ala	Lys	Phe	Phe	Thr	Ala	Ile	Cys	Asp
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Met	Val	Ala	Trp	Leu	Gly	Tyr	Thr	Pro	Tyr	Lys	Val	Thr	Tyr	Ala	Ser

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Asn Thr Leu Pro Ser Pro Trp Arg Asp Arg Pro Met Glu Glu Ser Leu
          370          375          380
Leu Leu Phe Glu Ala Met Arg Lys Gly Lys Phe Ser Glu Gly Glu Ala
          385          390          395          400
Thr Leu Arg Met Lys Leu Val Met Glu Asp Gly Lys Met Asp Pro Val
          405          410          415
Ala Tyr Arg Val Lys Tyr Thr Pro His His Arg Thr Gly Asp Lys Trp
          420          425          430
Cys Ile Tyr Pro Thr Tyr Asp Tyr Thr His Cys Leu Cys Asp Ser Ile
          435          440          445
Glu His Ile Thr His Ser Leu Cys Thr Lys Glu Phe Gln Ala Arg Arg
          450          455          460
Ser Ser Tyr Phe Trp Leu Cys Asn Ala Leu Asp Val Tyr Cys Pro Val
          465          470          475          480
Gln Trp Glu Tyr Gly Arg Leu Asn Leu His Tyr Ala Val Val Ser Lys
          485          490          495
Arg Lys Ile Leu Gln Leu Val Ala Thr Gly Ala Val Arg Asp Trp Asp
          500          505          510
Asp Pro Arg Leu Phe Thr Leu Thr Ala Leu Arg Arg Arg Gly Phe Pro
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Pro Glu Ala Ile Asn Asn Phe Cys Ala Arg Val Gly Val Thr Val Ala
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Gln Thr Thr Met Glu Pro His Leu Leu Glu Ala Cys Val Arg Asp Val
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Leu Asn Asp Thr Ala Pro Arg Ala Met Ala Val Leu Glu Ser Leu Arg
          565          570          575
Val Ile Ile Thr Asn Phe Pro Ala Ala Lys Ser Leu Asp Ile Gln Val
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Ala Pro Ile Val Phe Ile Glu Arg Thr Asp Phe Lys Glu Glu Pro Glu
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Pro Gly Phe Lys Arg Leu Ala Trp Gly Gln Pro Val Gly Leu Arg His
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Thr Gly Tyr Val Ile Glu Leu Gln His Val Val Lys Gly Pro Ser Gly
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Cys Val Glu Ser Leu Glu Val Thr Cys Arg Arg Ala Asp Ala Gly Glu
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Lys Pro Lys Ala Phe Ile His Trp Val Ser Gln Pro Leu Met Cys Glu
          675          680          685
Val Arg Leu Tyr Glu Arg Leu Phe Gln His Lys Asn Pro Glu Asp Pro
          690          695          700
Thr Glu Val Pro Gly Gly Phe Leu Ser Asp Leu Asn Leu Ala Ser Leu
          705          710          715          720
His Val Val Asp Ala Leu Val Asp Cys Ser Val Ala Leu Ala Lys
          725          730          735
Pro Phe Asp Lys Phe Gln Phe Glu Arg Leu Gly Tyr Phe Ser Val Asp
          740          745          750
Pro Asp Ser His Gln Gly Lys Leu Val Phe Asn Arg Thr Val Thr Leu

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2700

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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 Pro Ser Pro Asp Arg Phe Gly Met Leu Pro Leu Asp Glu Pro Ala Ile
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 65 70 75 80
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 Asp His Arg Thr Asp Glu Arg Lys Thr Thr Ile Lys Leu Gly Ser Asp
 115 120 125
 Ile Gln Val His Val Thr Ala Cys Ile Leu Ser Val Cys Gly Trp Ala
 130 135 140
 Cys Ser Ser Ser Leu Glu Ser Met Gln Leu Ser Leu Ile Ala Cys Ser
 145 150 155 160
 Gln Cys Met Arg Lys Val Gly Leu Trp Gly Phe Gln Gln Ile Glu Ser
 165 170 175
 Ser Met Thr Asp Leu Asp Ala Ser Phe Gly Leu Thr Ser Ser Pro Ile
 180 185 190
 Pro Gly Leu Glu Gly Arg Pro Glu Arg Leu Pro Leu Val Pro Glu Ser
 195 200 205
 Pro Arg Arg Met Met Thr Arg Ser Gln Asp Ala Thr Phe Ser Pro Gly

210		215		220											
Ser	Glu	Gln	Ala	Glu	Lys	Ser	Pro	Gly	Pro	Ile	Val	Ser	Arg	Thr	Arg
225				230					235						240
Ser	Trp	Asp	Ser	Ser	Ser	Pro	Val	Asp	Arg	Pro	Glu	Pro	Glu	Ala	Ala
			245					250						255	
Ser	Pro	Thr	Thr	Arg	Thr	Arg	Pro	Val	Thr	Arg	Ser	Met	Gly	Thr	Gly
			260					265					270		
Asp	Thr	Pro	Gly	Leu	Glu	Val	Pro	Ser	Ser	Xaa	Ser	Ala	Glu	Ser	Gln
		275				280					285				
Ala	Ser	Ser	Leu	Cys	Ser	Ser	Ser	Ser	Asp	Thr	Ser	Ser	Arg	Ser	
	290				295				300						
Phe	Phe	Asp	Pro	Thr	Ser	Gln	His	Arg	Asp	Trp	Cys	Pro	Trp	Val	Asn
305				310					315					320	
Ile	Thr	Leu	Gly	Lys	Glu	Ser	Arg	Glu	Asn	Gly	Gly	Thr	Glu	Pro	Asp
			325					330					335		
Ala	Ser	Ala	Pro	Ala	Glu	Pro	Gly	Trp	Lys	Ala	Val	Leu	Thr	Ile	Leu
		340					345				350				
Leu	Ala	His	Lys	Gln	Ser	Ser	Gln	Pro	Ala	Glu	Thr	Asp	Ser	Met	Ser
	355				360			365							
Leu	Ser	Glu	Lys	Ser	Arg	Lys	Val	Phe	Arg	Ile	Phe	Arg	Gln	Trp	Glu
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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720

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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4116
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 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
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 Leu His Asn Glu Gly Ala Ile
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<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

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<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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His	Leu	Gly	Pro	Gln	Ala	Gln	Pro	Ala	Val	Gln	Ala	His	Asp	Trp	Pro
		20						25					30		
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
		35				40						45			
Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
	50				55					60					
Gly	Glu	Ala	Thr	Pro	Pro	Pro	Ser	Ser	Gly	Ile	Ser	Ala	Val	Lys	Pro
65				70					75					80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
			85				90						95		
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
		100					105						110		
Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

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<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 20 25 30
 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
 65 70 75 80
 Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
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 His Ser Leu His
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

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<210> 4122

<211> 494

<212> PRT

<213> Homo sapiens

<400> 4122

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Phe	Gly	Leu	Gly	Leu	Gly	Leu	Ile	Glu	Glu	Lys	Gln	Ala	Glu	Ser	Arg
		20						25					30		
Arg	Ala	Val	Ser	Ala	Cys	Gln	Glu	Ile	Gln	Ala	Ile	Phe	Thr	Gln	Lys
		35				40						45			
Ser	Lys	Pro	Gly	Pro	Asp	Pro	Leu	Asp	Thr	Arg	Arg	Leu	Gln	Gly	Phe
	50					55				60					
Arg	Leu	Glu	Glu	Tyr	Leu	Ile	Gly	Gln	Ser	Ile	Gly	Lys	Gly	Cys	Ser
65				70					75					80	
Ala	Ala	Val	Tyr	Glu	Ala	Thr	Met	Pro	Thr	Leu	Pro	Gln	Asn	Leu	Glu
				85					90					95	
Val	Thr	Lys	Ser	Thr	Gly	Leu	Leu	Pro	Gly	Arg	Gly	Pro	Gly	Thr	Ser
			100					105					110		
Ala	Pro	Gly	Glu	Gly	Gln	Glu	Arg	Ala	Pro	Gly	Ala	Pro	Ala	Phe	Pro
		115				120						125			
Leu	Ala	Ile	Lys	Met	Met	Trp	Asn	Ile	Ser	Ala	Gly	Ser	Ser	Ser	Glu
	130					135					140				
Ala	Ile	Leu	Asn	Thr	Met	Ser	Gln	Glu	Leu	Val	Pro	Ala	Ser	Arg	Val

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              165              170              175
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              180              185              190
Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
              195              200              205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
              210              215              220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
225              230              235              240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
              245              250              255
Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
              260              265              270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
              275              280              285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
              290              295              300
Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
305              310              315              320
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
              325              330              335
Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
              340              345              350
Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
              355              360              365
Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
              370              375              380
Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
385              390              395              400
Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
              405              410              415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
              420              425              430
Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
              435              440              445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
              450              455              460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
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Cys Gln Ala Ala Leu Leu Cys Ser Trp Arg Ala Ala Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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120

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<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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				20			25				30		Arg
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro
				35			40				45		His
His	Leu	Ala	Ser	Glu	Asp	Ser	Phe	Tyr	Gly	Trp	Thr	Pro	Val
				50			55				60		His
Ala	Ala	His	Phe	Gly	Lys	Leu	Glu	Cys	Leu	Val	Gln	Leu	Val
				65			70				75		Arg
Gly	Ala	Thr	Leu	Asn	Val	Ser	Thr	Thr	Arg	Tyr	Ala	Gln	Thr
				85			90				95		Pro
His	Ile	Ala	Ala	Phe	Gly	Gly	His	Pro	Gln	Cys	Leu	Val	Trp
													Ile

	100		105		110										
Gln	Ala	Gly	Ala	Asn	Ile	Asn	Lys	Pro	Asp	Cys	Glu	Gly	Glu	Thr	Pro
	115		120		125										
Ile	His	Lys	Ala	Ala	Arg	Ser	Gly	Ser	Leu	Glu	Cys	Ile	Ser	Ala	Leu
	130		135		140										
Val	Ala	Asn	Gly	Ala	His	Val	Asp	Ser	Gln	His					
145			150		155										

<210> 4125

<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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Tyr	Glu	Thr	Cys	Lys	Ile	Arg	Thr	Ile	Lys	Ala	Gly	Thr	Leu	Glu	Lys
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Leu	Val	Glu	Asn	Leu	Leu	Thr	Ala	Phe	Gly	Asp	Asn	Asp	Phe	Thr	Tyr
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Ile	Ser	Ile	Phe	Leu	Ser	Thr	Tyr	Arg	Gly	Phe	Ala	Ser	Thr	Lys	Glu
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Val	Leu	Glu	Leu	Leu	Leu	Asp	Arg	Tyr	Gly	Asn	Leu	Thr	Ser	Pro	Asn
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Cys	Glu	Glu	Asp	Gly	Ser	Gln	Ser	Ser	Ser	Glu	Ser	Lys	Met	Val	Ile
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Glu	Asp	Phe	Arg	Glu	Pro	Pro	His	Phe	Pro	Cys	Leu	Gln	Lys	Leu	Leu
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Gln	Asn	Leu	Leu	Glu	Gln	Phe	Gln	Lys	Gln	Glu	Val	Glu	Thr	Asp	Asn
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<210> 4127

<211> 2189

<212> DNA

<213> Homo sapiens

<400> 4127

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<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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<212> PRT

<213> Homo sapiens

<400> 4130

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Val Gln Phe His Thr Cys Ala Ile His Ala Trp Gly Val Val Phe Gly
          340          345          350
Lys Glu Asp Leu Asp Asp Ala Phe Lys Asp Asp Arg Phe Pro Glu Tyr
          355          360          365
Gly Lys Val Glu Phe Val Phe Ser Tyr Gly Pro Glu Lys Ile Gln Gly
          370          375          380
Met Glu His Leu Glu Asn Gly Pro Ser Val Ser Val Asp Tyr Asn Thr
385          390          395          400
Ser Asp Pro Leu Ile Arg Trp Asp Ser Tyr Asp Asn Phe Ser Gly His
          405          410          415
Arg Asp Asp Gly Met Glu Glu Val Val Gly His Thr Gln Gly Pro Leu
          420          425          430
Asp Gly Ser Leu Tyr Ala Lys Val Lys Lys Lys Asp Ser Leu His Gly
          435          440          445
Ser Thr Gly Ala Val Asn Ala Thr Arg Pro Thr Leu Ser Ala Thr Pro
          450          455          460
Asn His Val Glu His Thr Leu Ser Val Ser Ser Asp Ser Gly Asn Ser
465          470          475          480
Thr Ala Ser Thr Lys Thr Asp Lys Thr Asp Glu Pro Val Pro Gly Ala
          485          490          495
Ser Ser Ala His Ala Ala Arg Thr Val Thr Ile Leu Val Trp Gln Phe
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Ile Val Gln Asp Val Cys Leu Pro Leu Arg Cys
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<210> 4131

<211> 608

<212> DNA

<213> Homo sapiens

<400> 4131

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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
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Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Pro Ala Arg
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Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala Ala
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Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

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<210> 4134

<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 35 40 45
 Ser Glu Gly Glu Gly Glu Ala Ala Ser Ala Asp Asp Gly Ser Leu Asn
 50 55 60
 Thr Ser Gly Ala Gly Pro Lys Ser Trp Gln Val Pro Pro Pro Ala Pro
 65 70 75 80
 Glu Val Gln Ile Arg Thr Pro Arg Val Asn Cys Pro Glu Lys Val Ile
 85 90 95
 Ile Cys Leu Asp Leu Ser Glu Glu Met Ser Leu Pro Lys Leu Glu Ser
 100 105 110
 Phe Asn Gly Ser Lys Thr Asn Ala Leu Asn Val Ser Gln Lys Met Ile
 115 120 125
 Glu Met Phe Val Arg Thr Lys His Lys Ile Asp Lys Ser His Glu Phe
 130 135 140
 Ala Leu Val Val Val Asn Asp Asp Thr Ala Trp Leu Ser Gly Leu Thr
 145 150 155 160
 Ser Asp Pro Arg Glu Leu Cys Ser Cys Leu Tyr Asp Leu Glu Thr Ala
 165 170 175
 Ser Cys Ser Thr Phe Asn Leu Glu Gly Leu Phe Ser Leu Ile Gln Gln
 180 185 190
 Lys Thr Glu Leu Pro Val Thr Glu Asn Val Gln Thr Ile Pro Pro Pro
 195 200 205
 Tyr Val Val Arg Thr Ile Leu Val Tyr Ser Arg Pro Pro Cys Gln Pro
 210 215 220
 Gln Phe Ser Leu Thr Glu Pro Met Lys Lys Met Phe Gln Cys Pro Tyr
 225 230 235 240
 Phe Phe Phe Asp Val Val Tyr Ile His Asn Gly Thr Glu Glu Lys Glu
 245 250 255
 Glu Glu Met Ser Trp Lys Asp Met Phe Ala Phe Met Gly Ser Leu Asp
 260 265 270
 Thr Lys Gly Thr Ser Tyr Lys Tyr Glu Val Ala Leu Ala Gly Pro Ala
 275 280 285
 Leu Glu Leu His Asn Cys Met Ala Lys Leu Leu Ala His Pro Leu Gln
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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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 180
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<210> 4136

<211> 123

<212> PRT

<213> Homo sapiens

<400> 4136

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			20					25					30		
Ser	Leu	Leu	Pro	Leu	Leu	Glu	Lys	Leu	Thr	Thr	Gly	Arg	Ile	Ala	Glu
			35				40					45			
Leu	Leu	Ser	Pro	Asp	Tyr	Met	Asp	Leu	Glu	Asp	Pro	Arg	Pro	Ile	Phe
			50				55				60				
Asp	Trp	Met	Gln	Ile	Ile	Arg	Lys	Arg	Ala	Val	Val	Tyr	Val	Gly	Leu
65					70					75				80	
Asp	Ala	Leu	Ser	Asp	Thr	Glu	Val	Ala	Ala	Ala	Val	Gly	Asn	Ser	Met
				85					90					95	
Phe	Ser	Asp	Leu	Val	Ser	Val	Ala	Gly	His	Ile	Tyr	Lys	Phe	Gly	Ile
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<210> 4137

<211> 2255

<212> DNA

<213> Homo sapiens

<400> 4137

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 480
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1260
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1320
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2100
gcccatccag gctgctccct ggggtggaga agggaccagg gattgcaggc cccatctcca
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<210> 4138
 <211> 353
 <212> PRT
 <213> Homo sapiens

<400> 4138
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 35 40 45
 Val Ser Leu Gly His Leu Glu Ser Ala Arg Val Leu Leu Arg His Lys
 50 55 60
 Ala Asp Val Thr Lys Glu Asn Arg Gln Gly Trp Thr Val Leu His Glu
 65 70 75 80
 Ala Val Ser Thr Gly Asp Pro Glu Met Val Tyr Thr Val Leu Gln His
 85 90 95
 Arg Asp Tyr His Asn Thr Ser Met Ala Leu Glu Gly Val Pro Glu Leu
 100 105 110
 Leu Gln Lys Ile Leu Glu Ala Pro Asp Phe Tyr Val Gln Met Lys Trp
 115 120 125
 Glu Phe Thr Ser Trp Val Pro Leu Val Ser Arg Ile Cys Pro Asn Asp
 130 135 140
 Val Cys Arg Ile Trp Lys Ser Gly Ala Lys Leu Arg Val Asp Ile Thr
 145 150 155 160
 Leu Leu Gly Phe Glu Asn Met Ser Trp Ile Arg Gly Arg Arg Ser Phe
 165 170 175
 Ile Phe Lys Gly Glu Asp Asn Trp Ala Glu Leu Met Glu Val Asn His
 180 185 190
 Asp Asp Lys Val Val Thr Thr Glu Arg Phe Asp Leu Ser Gln Glu Met
 195 200 205
 Glu Arg Leu Thr Leu Asp Leu Met Lys Pro Lys Ser Arg Glu Val Glu
 210 215 220
 Arg Arg Leu Thr Ser Pro Val Ile Asn Thr Ser Leu Asp Thr Lys Asn
 225 230 235 240
 Ile Ala Phe Glu Arg Thr Lys Ser Gly Phe Trp Gly Trp Arg Thr Asp
 245 250 255
 Lys Ala Glu Val Val Asn Gly Tyr Glu Ala Lys Val Tyr Thr Val Asn
 260 265 270
 Asn Val Asn Val Ile Thr Lys Ile Arg Thr Glu His Leu Thr Glu Glu
 275 280 285
 Glu Lys Lys Arg Tyr Lys Ala Asp Arg Asn Pro Leu Glu Ser Leu Leu
 290 295 300
 Gly Thr Val Glu His Gln Phe Gly Ala Gln Gly Asp Leu Thr Thr Glu
 305 310 315 320
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 <210> 4139
 <211> 431
 <212> DNA
 <213> Homo sapiens

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 431

 <210> 4140
 <211> 50
 <212> PRT
 <213> Homo sapiens

 <400> 4140
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 Val Pro
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 <210> 4141
 <211> 1182
 <212> DNA
 <213> Homo sapiens

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 780
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<211> 311

<212> PRT

<213> Homo sapiens

<400> 4142

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			20					25					30		
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
		35				40						45			
Val	Gly	Arg	Lys	Ile	Gln	Asp	His	Gln	Val	Val	Ile	Asn	Cys	Ala	Ile
	50				55			60							
Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
65				70				75					80		
Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
			85					90					95		
Ala	Asn	Val	Phe	Ala	Ser	Ala	Met	Met	His	Ala	Leu	Glu	Val	Leu	Asn

	100		105		110										
Ser	Gln	Glu	Thr	Gly	Pro	Thr	Leu	Pro	Arg	Gln	Asn	Ser	Gln	Leu	Pro
	115						120					125			
Ala	Gln	Val	Gln	Asn	Gly	Pro	Ser	Gln	Glu	Glu	Leu	Glu	Ile	Gln	Arg
	130						135					140			
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145					150					155					160
Leu	Glu	Arg	Glu	Arg	Met	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu
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Glu	Arg	Glu	Arg	Leu	Glu	Arg	Glu	Arg	Leu	Glu	Gln	Glu	Gln	Leu	Glu
			180					185					190		
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	195						200					205			
Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Glu	Arg	Gln	Glu	Arg	Leu	Asp	Arg
	210						215					220			
Glu	Arg	Glu	Arg	Gln	Glu	Arg	Glu	Arg	Leu	Glu	Arg	Leu	Glu	Arg	Glu
225					230					235					240
Arg	Gln	Glu	Arg	Glu	Arg	Gln	Glu	Gln	Leu	Glu	Arg	Glu	Gln	Leu	Glu
			245						250					255	
Trp	Glu	Arg	Glu	Arg	Arg	Ile	Ser	Ser	Ala	Ala	Ala	Pro	Ala	Ser	Val
			260					265					270		
Glu	Thr	Pro	Leu	Asn	Ser	Val	Leu	Gly	Asp	Ser	Ser	Ala	Ser	Glu	Pro
		275						280				285			
Gly	Leu	Gln	Ala	Ala	Ser	Gln	Pro	Ala	Glu	Thr	Pro	Ser	Gln	Gln	Gly
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305					310										

<210> 4143

<211> 1773

<212> DNA

<213> Homo sapiens

<400> 4143

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tgctgtggc acctggaatg ggtgacttgt caaatctcc ctcaagacgt tttgtgcgtt
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<210> 4144

<211> 231

<212> PRT

<213> Homo sapiens

<400> 4144

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      100             105             110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
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<211> 400

<212> DNA

<213> Homo sapiens

<400> 4145

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<213> Homo sapiens

<400> 4146

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<211> 4892

<212> DNA

<213> Homo sapiens

<400> 4147

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<211> 697

<212> PRT

<213> Homo sapiens

<400> 4148

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 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
 65 70 75 80
 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
 85 90 95
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 115 120 125
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 Ser Ser Thr Lys Leu Ser Glu Leu His Asp Asn Gln Asp Gly Leu Val
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 Asp Asp Phe Glu Trp Met Ser Asp Glu Arg Lys Gly Asn Glu Lys Asp

3335

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Lys	Lys	Leu	Arg	Asp	Phe	Glu	Asp	Asn	Phe	Phe	Arg	Gln	Asn	Gly	Arg
		645		650		655									
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<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4149

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<211> 193

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<213> Homo sapiens

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His	Ile	Lys	Arg	Ile	Thr	Asp	Asn	Asp	Ile	Gln	Ser	Leu	Val	Leu	Glu
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<210> 4151

<211> 1372

<212> DNA

<213> Homo sapiens

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<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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 Gly Cys Pro Ala Val Arg Lys Ala Ser Ala Gly Ala Ala Ala Val

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      20      25      30
Arg Glu Gly Glu Thr Pro Ala Glu Asp Ala Lys Leu Asp Arg Pro Gly
      35      40      45
Ser Glu Pro Ala Ser Val Ala Pro Asn Gln Asn Leu Leu Cys Ala Pro
      50      55      60
Arg Pro Pro Ser Thr Phe Met Ser Val Leu Leu Leu Arg Gly Gln Val
65      70      75      80
Leu Pro Ser Leu Thr Ala Leu Ala Arg Pro Ala Arg Phe Pro Ser Asn
      85      90      95
Pro

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<210> 4153
 <211> 395
 <212> DNA
 <213> Homo sapiens

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<400> 4153
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120
tcattaattc ttccacttta tcatttacat ctaggtcctc ttctgaggct tcaaaactgt
180
atgacctctg acccatgctg tttgcatgga agcgagttgg tgacatcttt ccattggatg
240
tagataatcg ctcattattc tcctcccat tttgattggt agtgcaaggc tgtggggaag
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395

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<210> 4154
 <211> 110
 <212> PRT
 <213> Homo sapiens

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<400> 4154
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Thr Thr Asn Gln Asn Gly Arg Glu Asn Asn Glu Arg Leu Ser Thr Ser
20      25      30
Asn Gly Lys Met Ser Pro Thr Arg Phe His Ala Asn Ser Met Gly Gln
35      40      45
Arg Ser Tyr Ser Phe Glu Ala Ser Glu Glu Asp Leu Asp Val Asn Asp
50      55      60
Lys Val Glu Glu Leu Met Arg Arg Asp Ser Ser Val Ile Lys Glu Glu
65      70      75      80
Ile Lys Ala Phe Leu Ala Asn Arg Arg Ile Ser Gln Ala Val Asp Thr
85      90      95
Ile Gly Lys Met Leu Phe Pro Ser Val His Ser Gly Leu Ile
100      105      110

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<210> 4155
<211> 1191
<212> DNA
<213> Homo sapiens

<400> 4155
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tgcgcgagcg ggtgtgggcg ctgttcgacg tgcggcccga atgccagcgc ctcttctacc
240
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300
taattcagct gctagtctgc ccagaccctg atcatcttcc tggcacatct acacagattg
360
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420
ccaatcagcc atctacatca gctcgtgccc gtcttattga tcctggcttt ggaatatata
480
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540
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gaaagtcctg gacaaagagg attctggttt gatgcagaaa ttaccacatt gaagacaatc
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1191

<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
Lys Ala Gly Glu Arg Leu Lys Met Ser Lys Lys Lys Ala Lys Met Pro			
210	215	220	
Ser Ala Ser Thr Glu Ser Arg Arg Asp			
225	230		

<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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120

gaggatgagt ttgaggagac actccaggag gcttgcaggc acctgggcag atacaggggtg

180

attggcagga tgtttaggag ggaggagaac gccagggcga ttctactgga gctggcacia

240

gatatcgact atgctttgct cccaagggaa ataccaggaa agggggggcc ctgggaagtg

300

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360

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420

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480

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540

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720
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2160

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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20 25 30
 Asp Glu Phe Glu Glu Thr Leu Gln Glu Ala Cys Arg His Leu Gly Arg
 35 40 45
 Tyr Arg Val Ile Gly Arg Met Phe Arg Arg Glu Glu Asn Ala Gln Ala
 50 55 60
 Ile Leu Leu Glu Leu Ala Gln Asp Ile Asp Tyr Ala Leu Leu Pro Arg
 65 70 75 80
 Glu Ile Pro Gly Lys Gly Gly Pro Trp Glu Val Ile Val Lys Pro Arg
 85 90 95
 Asn Ser Asp Gly Glu Phe Leu Asn Arg Leu Asn Arg Phe Leu Glu Glu
 100 105 110
 Glu Arg Arg Thr Val Ser Asp Met Asn Arg Val Leu Gly Ser Asp Thr
 115 120 125
 Asn Cys Ser Ala Pro Arg Val Thr Ile Ser Pro Glu Phe Trp Thr Trp
 130 135 140
 Ala Gln Thr Leu Gly Ala Ala Val Gln Pro Leu Leu Glu Gln Met Leu
 145 150 155 160
 Tyr Arg Glu Leu Arg Val Phe Ser Gly Asn Thr Ile Ser Ile Pro Gly
 165 170 175
 Ala Leu Ala Phe Asp Ala Trp Leu Glu His Thr Thr Glu Met Leu Gln
 180 185 190
 Met Trp Gln Val Pro Glu Gly Glu Lys Arg Arg Arg Leu Met Glu Cys
 195 200 205
 Leu Arg Gly Pro Ala Leu Gln Val Val Ser Gly Leu Arg Ala Ser Asn
 210 215 220
 Ala Ser Ile Thr Val Glu Cys Leu Ala Ala Leu Gln Gln Val Phe
 225 230 235 240
 Gly Pro Val Glu Ser His Lys Ile Ala Gln Val Lys Leu Cys Lys Ala
 245 250 255
 Tyr Gln Glu Ala Gly Glu Lys Val Ser Ser Phe Val Leu Arg Leu Glu
 260 265 270
 Pro Leu Leu Gln Arg Ala Val Glu Asn Asn Val Val Ser Arg Arg Asn
 275 280 285
 Val Asn Gln Thr Arg Leu Lys Arg Val Leu Ser Gly Ala Thr Leu Pro
 290 295 300
 Asp Lys Leu Arg Asp Lys Leu Lys Leu Met Lys Gln Arg Arg Lys Pro
 305 310 315 320
 Pro Gly Phe Leu Ala Leu Val Lys Leu Leu Arg Glu Glu Glu Glu Trp
 325 330 335
 Glu Ala Thr Leu Gly Pro Asp Arg Glu Ser Leu Glu Gly Leu Glu Val
 340 345 350
 Ala Pro Arg Pro Pro Ala Arg Ile Thr Gly Val Gly Ala Val Pro Leu
 355 360 365
 Pro Ala Ser Gly Asn Ser Phe Asp Ala Arg Pro Ser Gln Gly Tyr Arg
 370 375 380
 Arg Arg Arg Gly Arg Gly Gln His Arg Arg Gly Gly Val Ala Arg Ala
 385 390 395 400
 Gly Ser Arg Gly Ser Arg Lys Arg Lys Arg His Thr Phe Cys Tyr Ser
 405 410 415
 Cys Gly Glu Asp Gly His Ile Arg Val Gln Cys Ile Asn Pro Ser Asn
 420 425 430
 Leu Leu Leu Val Lys Gln Lys Lys Gln Ala Ala Val Glu Ser Gly Asn
 435 440 445
 Gly Asn Trp Ala Trp Asp Lys Ser His Pro Lys Ser Lys Ala Lys

450 455 460
 <210> 4159
 <211> 1491
 <212> DNA
 <213> Homo sapiens

 <400> 4159
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 1380

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 1491

<210> 4160
 <211> 360
 <212> PRT
 <213> Homo sapiens

<400> 4160
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 Thr Asn Thr Glu Ser Ala Lys Ile Arg Ala Ile Glu Lys Ser Val Val
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 35 40 45
 Lys Phe Ser Ile Arg Asn Arg Arg His His Cys Arg Leu Cys Gly Ser
 50 55 60
 Ile Met Cys Lys Lys Cys Met Glu Leu Ile Ser Leu Pro Leu Ala Asn
 65 70 75 80
 Lys Leu Thr Ser Ala Ser Lys Glu Ser Leu Ser Thr His Thr Ser Pro
 85 90 95
 Ser Gln Ser Pro Asn Ser Val His Gly Ser Arg Arg Gly Ser Ile Ser
 100 105 110
 Ser Met Ser Ser Val Ser Ser Val Leu Asp Glu Lys Asp Asp Asp Arg
 115 120 125
 Ile Arg Cys Cys Thr His Cys Lys Asp Thr Leu Leu Lys Arg Glu Gln
 130 135 140
 Gln Ile Asp Glu Lys Glu His Thr Pro Asp Ile Val Lys Leu Tyr Glu
 145 150 155 160
 Lys Leu Arg Leu Cys Met Glu Lys Val Asp Gln Lys Ala Pro Glu Tyr
 165 170 175
 Ile Arg Met Ala Ala Ser Leu Asn Ala Gly Glu Thr Thr Tyr Ser Leu
 180 185 190
 Glu His Ala Ser Asp Leu Arg Val Glu Val Gln Lys Val Tyr Glu Leu
 195 200 205
 Ile Asp Ala Leu Ser Lys Lys Ile Leu Thr Leu Gly Leu Asn Gln Asp
 210 215 220
 Pro Pro Pro His Pro Ser Asn Leu Arg Leu Gln Arg Met Ile Arg Tyr
 225 230 235 240
 Ser Ala Thr Leu Phe Val Gln Glu Lys Leu Leu Gly Leu Met Ser Leu
 245 250 255
 Pro Thr Lys Glu Gln Phe Glu Glu Leu Lys Lys Lys Arg Lys Glu Glu
 260 265 270
 Met Glu Arg Lys Arg Ala Val Glu Arg Gln Ala Ala Leu Glu Ser Gln
 275 280 285
 Arg Arg Leu Glu Glu Arg Gln Ser Gly Leu Ala Ser Arg Ala Ala Asn
 290 295 300
 Gly Glu Val Ala Ser Leu Arg Arg Gly Pro Ala Pro Leu Lys Lys Ala
 305 310 315 320
 Glu Gly Trp Leu Pro Leu Ser Gly Gly Gln Gly Gln Ser Glu Asp Ser
 325 330 335
 Asp Pro Leu Leu Gln Gln Ile His Asn Ile Thr Ser Phe Ile Arg Gln

3347

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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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Leu	Leu	Leu	Leu	Phe	Leu	Ala	Gly	Val	Tyr	Gly	Asn	Gly	Ala	Leu	Ala
			20					25					30		
Glu	His	Ser	Glu	Asn	Val	His	Ile	Ser	Gly	Val	Ser	Thr	Ala	Cys	Gly
		35					40					45			
Glu	Thr	Pro	Glu	Gln	Ile	Arg	Ala	Pro	Ser	Gly	Ile	Ile	Thr	Ser	Pro
	50					55					60				
Gly	Trp	Pro	Ser	Glu	Tyr	Pro	Ala	Lys	Ile	Asn	Cys	Ser	Trp	Phe	Ile
65				70					75					80	
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Ile	Gln	Gly	Ser	Arg	Arg	Cys	Asn	Leu	Asp	Trp	Leu	Thr	Ile	Glu	Thr
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Tyr	Lys	Asn	Ile	Glu	Ser	Tyr	Arg	Ala	Cys	Gly	Ser	Thr	Ile	Pro	Pro
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Pro	Tyr	Ile	Ser	Ser	Gln	Asp	His	Ile	Trp	Ile	Arg	Phe	His	Ser	Asp
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Lys	Cys	Ile	Pro	Glu	Ala	Trp	Lys	Cys	Asn	Asn	Met	Asp	Glu	Cys	Gly
		180					185						190		
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			245					250					255		
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Lys Leu Asp Gly Thr Gly Tyr Gly Asp Tyr Val Lys Ile Tyr Asp Gly		
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Leu Glu Glu Asn Pro His Lys Leu Leu Arg Val Leu Thr Ala Phe Asp		
325	330	335
Ser His Ala Pro Leu Thr Val Val Ser Ser Gly Gln Ile Arg Val		
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His Phe Cys Ala Asp Lys Val Asn Ala Ala Arg Gly Phe Asn Ala Thr		
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Tyr Gln Val Asp Gly Phe Cys Leu Pro Trp Glu Ile Pro Cys Gly Gly		
370	375	380
Asn Trp Gly Cys Tyr Thr Glu Gln Gln Arg Cys Asp Gly Tyr Trp His		
385	390	395
Cys Pro Asn Gly Arg Asp Glu Thr Asn Cys Thr Met Cys Gln Lys Glu		
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Glu Phe Pro Cys Ser Arg Asn Gly Val Cys Tyr Pro Arg Ser Asp Arg		
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Cys Asn Tyr Gln Asn His Cys Pro Asn Gly Ser Asp Glu Lys Asn Cys		
435	440	445
Phe Phe Cys Gln Pro Gly Asn Phe His Cys Lys Asn Asn Arg Cys Val		
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Phe Glu Ser Trp Val Cys Asp Ser Gln Asp Asp Cys Gly Asp Gly Ser		
465	470	475
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515	520	525
Phe Glu Thr Gln Leu Ser Arg Val Glu Ala Glu Leu Leu Arg Arg Glu		
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545	550	555
Val Glu Asp Phe Pro Val Cys Ser Pro Asn Gln Ala Ser Val Leu Glu		
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Phe Ala Arg Ser Arg His Ser Gly Ser Leu Ala Leu Val Ser Ala Asp		
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Asn His Thr His Arg Ser Leu Phe Ser Val Glu Ser Asp Asp Thr Asp		
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Thr Glu Asn Glu Arg Arg Asp Met Ala Gly Ala Ser Gly Gly Val Ala		
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Ala Pro Leu Pro Gln Lys Val Pro Pro Thr Thr Ala Val Glu Ala Thr		
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Val Gly Ala Cys Ala Ser Ser Ser Thr Gln Ser Thr Arg Gly Gly His		

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705              710              715              720
Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly
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Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln
      740              745              750
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu
      755              760              765
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser
      770              775              780
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser
785              790              795              800
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly
      805              810              815
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val
      820              825              830
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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 50 55 60
 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
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 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
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 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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 Trp Thr Cys Arg His Met Ala Ile Glu Leu Gln
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<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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			20					25					30		
Arg	Arg	Thr	Gly	Gln	Tyr	Lys	Gly	Leu	Leu	Asp	Cys	Ala	Arg	Arg	Ile
		35					40					45			
Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
	50					55					60				
Val	Leu	Gly	Ile	Ile	Pro	Tyr	Ala	Gly	Ile	Asp	Leu	Ala	Val	Tyr	Glu
65					70					75				80	
Thr	Leu	Lys	Asn	Trp	Trp	Leu	Gln	Gln	Tyr	Ser	His	Asp	Ser	Ala	Asp
			85						90					95	
Pro	Gly	Ile	Leu	Val	Leu	Leu	Ala	Cys	Gly	Thr	Ile	Ser	Ser	Thr	Cys
			100					105						110	
Gly	Gln	Ile	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	Gln
		115					120						125		
Ala	Gln	Gly	Phe	His	His	Val	Ala	Gln	Ala	His	Leu	Glu	Leu	Val	Gly
		130				135					140				
Ser	Arg	Asn	Ser	Pro	Ala	Phe	Ser	Leu	Pro	Thr	Cys	Trp	Asp	Tyr	Arg
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<210> 4167

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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120
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240
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300
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360
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420
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 780
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<210> 4168

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4168

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Gly	Gln	Phe	Thr	Arg	Glu	Arg	Ala	Gly	Arg	Glu	Asp	His	Arg	Ala	Phe
			20					25					30		
Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
		35					40					45			
Pro	Pro	Gly	Ile	Lys	Gln	Ser	Ser	Cys	Phe	Ser	Leu	Leu	Ser	Ser	Leu
		50				55					60				
Asp	Tyr	Arg	Tyr	Gly	Arg	Val	Glu	Ser	Val	Lys	Ile	Leu	Pro	Lys	Arg
65					70					75				80	
Gly	Ser	Glu	Gly	Gly	Val	Ala	Ala	Phe	Val	Asp	Phe	Val	Asp	Ile	Lys
			85					90						95	
Ser	Ala	Gln	Lys	Ala	His	Asn	Ser	Val	Asn	Lys	Met	Gly	Asp	Arg	Asp
		100						105					110		
Leu	Arg	Thr	Asp	Tyr	Asn	Glu	Pro	Gly	Thr	Ile	Pro	Ser	Ala	Ala	Arg
		115						120					125		
Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
		130						135					140		
Gly	Phe	Arg	Gly	Gly	Gly	Gly	Gly	Pro	Ala	Tyr	Gly	Pro	Pro	Pro	Ser
145					150					155				160	
Leu	His	Ala	Arg	Glu	Gly	Arg	Tyr	Glu	Arg	Arg	Leu	Asp	Gly	Ala	Ser
			165						170					175	
Asp	Asn	Arg	Glu	Arg	Ala	Tyr	Glu	His	Ser	Ala	Tyr	Gly	His	His	Glu
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Arg	Gly	Thr	Gly	Gly	Phe	Asp	Arg	Thr	Arg	His	Tyr	Asp	Gln	Asp	Tyr
		195						200					205		
Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
		210					215					220			
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
225					230					235				240	
Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
			245						250					255	
Asp	Ile	Tyr	Arg	Asp	Asp	Ile	Thr	Arg	Glu	Val	Arg	Gly	Arg	Arg	Pro

	260		265		270
Glu Arg Asn Tyr Gln His Ser Arg Ser Arg Ser Pro His Ser Ser Gln					
	275		280		285
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
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Ile	Cys	Phe	Pro	Asp	Ser	Leu	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe
			115				120					125			
Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
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<211> 889
<212> DNA
<213> Homo sapiens
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 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
 65 70 75 80
 Asp Cys Ala Thr Ala Asn Pro Val Pro Ser Gln His Pro Cys Phe Lys
 85 90 95
 Pro Trp Ser Tyr Ile Pro Asp Gly Ile Met Pro Ile Phe Trp Arg Val
 100 105 110
 Val Tyr Trp Thr Ser Gln Phe Leu Thr Trp Ile Leu Leu Pro Phe Met
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 Gln Ser Tyr Ala Arg Ser Gly Gly Phe Ser Ile Thr Gly Lys Ile Lys
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<210> 4176

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<212> PRT

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Ala	Gly	Leu	Arg	Ala	Ala	Met	Gly	Pro	Gly	Ile	Ser	Arg	Met	Asn	Asp
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Leu	Thr	Ile	Ile	Gln	Thr	Thr	Gln	Gly	Phe	Cys	Arg	Tyr	Leu	Glu	Lys
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Ala	Ala	Thr	Thr	Phe	Ile	Ser	Gln	Gly	Ile	Pro	Val	Tyr	Leu	Phe	Ser
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Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
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Leu	Cys	Ala	Gly	Ile	Met	Ile	Thr	Ala	Ser	His	Asn	Pro	Lys	Gln	Asp
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Asn	Gly	Tyr	Lys	Val	Tyr	Trp	Asp	Asn	Gly	Ala	Gln	Ile	Ile	Ser	Pro
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Pro	Gln	Ala	Trp	Asp	Asp	Ser	Leu	Ile	Asp	Ser	Ser	Pro	Leu	Leu	His
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Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
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Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
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His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
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Lys	Ala	Phe	Xaa	Pro	Cys	Ser	Ser	Xaa	Glu	Ala	Val	Pro	Glu	Gln	Lys


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Thr Gly Tyr Asp Asp Ser Gln Pro Asp Lys Lys Ala Val Leu Pro Thr
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Ala Thr Met Arg Thr Ser Gly Thr Glu Pro Lys Ile Lys Tyr Tyr Ala
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Glu Leu Cys Ala Pro Pro Gly Asn Ser Asp Pro Glu Gln Leu Lys Lys
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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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3660
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3720
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3780
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3960
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4080
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4200
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4260
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4380
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<210> 4178

<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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      20           25           30
Ala Ala His Leu Asp Asn Gln Val Pro Val Glu Ser Pro Arg Ala Ile
      35           40           45
Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
      50           55           60
Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
65           70           75           80
His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
      85           90           95
Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
      100          105          110
Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
      115          120          125
Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
130          135          140
Cys Ala Lys Gln Asp Trp Leu Ile Leu His Ile Pro Asp Ala His Leu
145          150          155          160
Trp Val Lys Asn Cys Arg Asp Leu Leu Gln Ser Ser Tyr Asn Lys Gln
      165          170          175
Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
      180          185          190
Thr Thr Asn Glu Arg Phe Leu Asn Gln Ile Lys Val Gln Glu Lys Tyr
      195          200          205
Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
210          215          220
Val Val Glu Gln Gly Ile Thr Arg Val Arg Asn Ala Thr Asp Ala Val
225          230          235          240
Gly Ile Val Leu Lys Glu Leu Lys Arg Gln Ser Ser Leu Gly Met Phe
      245          250          255
His Leu Leu Val Ala Val Asp Gly Ile Asn Ala Leu Trp Gly Arg Thr
      260          265          270
Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
      275          280          285
Leu Val His Asn Leu Arg Lys Met Met Lys Asn Asp Trp His Gly Gly
      290          295          300
Ala Ile Val Ser Ala Leu Ser Gln Thr Gly Ser Leu Phe Lys Pro Arg
305          310          315          320
Lys Ala Tyr Leu Pro Gln Glu Leu Leu Gly Lys Glu Gly Phe Asp Ala
      325          330          335
Leu Asp Pro Phe Ile Pro Ile Leu Val Ser Asn Tyr Asn Pro Lys Glu
      340          345          350
Phe Glu Ser Cys Ile Gln Tyr Tyr Leu Glu Asn Asn Trp Leu Gln His
      355          360          365
Glu Lys Ala Pro Thr Glu Glu Gly Lys Lys Glu Leu Leu Phe Leu Ser
      370          375          380
Asn Ala Asn Pro Ser Leu Leu Glu Arg His Cys Ala Tyr Leu
385          390          395

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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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120
ggcaccatt aaagactcaa cagtcaaat gagacaaatc agtccttttag acgttcacag
180
acaattgaaa ggcaacttta aaatccactt tttaaactac cacttgagaa cacatggtag
240
cacagtctta aattcatcct agttgatcgg gaatgatgaa tgagtgttgg caccagaaaa
300
tcctgcttgc agaagggggc gcaggtgtcg gtccacggga cagccactgg ccaggctagc
360
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420
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480
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540
gtcacagtgg ggttaccag taaacagcta ccaaagccat catttcacgc ttcctgtag
600
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660
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720
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780
atccatgcct cctgcctgcc cccaccccca gcccaccag tgagacttct gattggaagt
840
ctatagacat aagaattcaa ctctgaccca tggatgagag gatgaggcaa agaaccaatg
900
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960
caagacgaca ttacttcaa gaaccaagtc atcccttgct tctgcgggcc cagtgccacg
1020
ggtactgtcc tgagtggttt ggaaggtggg tagccgctga tacagggaca ggcagatgtg
1080
cagacactta ccaccctggc ccaccgatcc caccatgc ttcacctcc cagagctctt
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1200
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1440
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 1800
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 1980
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 2040
 gcacggcgtg caccgaggaa accagcctgg tgctgatcat caccgagtcg gtgcggctcc
 2100
 atccgggctg ggagcggcgc agcgcccagg tgcagagcgc gaagagcccc gggaagaaga
 2160
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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

Met	Leu	Leu	Thr	Leu	Ala	Gly	Gly	Ala	Leu	Phe	Phe	Pro	Gly	Leu	Phe
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Ala	Leu	Cys	Thr	Trp	Ala	Leu	Arg	Arg	Ser	Gln	Pro	Gly	Trp	Ser	Arg
			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
			35				40					45			
Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
			50			55					60				
Val	Ile	Thr	Gly	Arg	His	Trp	Leu	Ala	Arg	Glu	Tyr	Val	Trp	Phe	Leu
					70				75					80	
Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
				85				90					95		
Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
				100				105					110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
				115			120					125			
Phe	Val	Leu	Val	Pro	Val	Ala	Gln	Arg	Leu	Arg	Gly	Asp	Leu	Gly	Asp
				130		135					140				
Phe	Phe	Val	Gly	Cys	Ile	Phe	Thr	Ala	Glu	Leu	Ser	Thr	Pro	Phe	Val
					150					155				160	
Ser	Leu	Gly	Arg	Val	Leu	Ile	Gln	Leu	Lys	Gln	Gln	His	Thr	Leu	Leu
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Tyr	Lys	Val	Asn	Gly	Ile	Leu	Thr	Leu	Ala	Thr	Phe	Leu	Ser	Cys	Arg

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<400> 4182
His Pro Ala Gly Ile Glu Phe Ser Leu Cys Leu Leu Phe Ala Lys Leu
 1             5             10             15
Val Ser Tyr Thr Phe Leu Tyr Trp Leu Pro Leu Tyr Ile Ala Asn Val

```



```

      20      25      30
Ala His Phe Ser Ala Lys Glu Ala Gly Asp Leu Ser Thr Leu Phe Asp
      35      40      45
Val Gly Gly Ile Ile Gly Gly Ile Val Ala Gly Leu Val Ser Asp Tyr
      50      55      60
Thr Asn Gly Arg Ala Thr Thr Cys Cys Val Met Leu Ile Leu Ala Ala
65      70      75      80
Pro Met Met Phe Leu Tyr Asn Tyr Ile Gly Gln Asp Gly Ile Ala Ser
      85      90      95
Ser Ile Val Met Leu Ile Ile Cys Gly Gly Leu Val Asn Gly Pro Tyr
      100      105      110
Ala Xaa Ile Thr Thr Ala Val Ser Ala Asp Leu Gly Thr His Lys Ser
      115      120      125
Leu Lys Gly Asn Ala Lys Ala Leu Ser Thr Val Thr Ala Ile Ile Asp
      130      135      140
Gly Thr Gly Ser Ile Gly Ala Ala Leu Gly Pro Leu Leu Ala Gly Leu
145      150      155      160
Ile Ser Pro Thr Gly Trp Asn Asn Val Phe Tyr Met Leu Ile Ser Ala
      165      170      175
Asp Val Leu Ala Cys Leu Leu Leu Cys Arg Leu Val Tyr Lys Glu Ile
      180      185      190

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<210> 4183

<211> 1129

<212> DNA

<213> Homo sapiens

<400> 4183

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120
atatataggt ccctgttggtg atatctgttg ttgattctgt accacagaag tctgggggtg
180
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240
tgtttgttct tgctgcgaca aacattgagc agcattaagt gggcggttta cgtcctgtgg
300
agtaatgggt gtttttgaag tctgtccttg atactgcaca ttaaaaggaa tatcattttc
360
tgaaacattg ctattttcca taccagatag catatcctct tgctggtcca tatccgaaga
420
ccttacacga gaaagtctta atgtaagttt agtagagtcc ttggatggag aactaattat
480
atcatacatt gccgctttct cactctgctc tttttcatcc ttgcctaatt tcattttctt
540
ctgcttcttt tgttttcttt ctggagaatc tagcaagata tctggtggaa catctcgagg
600
tgatgaacaa ggtagagact gagattgtag gattaaagggt ggtcttgagc ctttaggagt
660
tccttcactt ccagcagggg agcatactgg ctgtggagat ctcaagggaa aagatgcagc
720
attcctcatt gttgaagaat ctccatcgct actacttagc ctgtgcacca tgtgtaggta
780

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 900
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 960
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 1020
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 1080
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 1129

<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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His	Ser	Pro	Ser	Ser	Arg	Phe	Val	Pro	Pro	Gln	Thr	Ser	Ser	Gly	Asn
		20						25					30		
Arg	Phe	Met	Pro	Gln	Gln	Asn	Ser	Pro	Val	Pro	Ser	Pro	Tyr	Ala	Pro
		35					40					45			
Gln	Ser	Pro	Ala	Gly	Tyr	Met	Pro	Tyr	Ser	His	Pro	Ser	Ser	Tyr	Thr
	50					55					60				
Thr	His	Pro	Gln	Met	Gln	Gln	Ala	Ser	Val	Ser	Ser	Pro	Ile	Val	Ala
65					70					75				80	
Gly	Gly	Leu	Arg	Asn	Ile	His	Asp	Asn	Lys	Val	Ser	Gly	Pro	Leu	Ser
				85					90					95	
Gly	Asn	Ser	Ala	Asn	His	His	Ala	Asp	Asn	Pro	Arg	His	Gly	Ser	Ser
		100						105					110		
Glu	Asp	Tyr	Leu	His	Met	Val	His	Arg	Leu	Ser	Ser	Asp	Asp	Gly	Asp
		115						120				125			
Ser	Ser	Thr	Met	Arg	Asn	Ala	Ala	Ser	Phe	Pro	Leu	Arg	Ser	Pro	Gln
		130				135					140				
Pro	Val	Cys	Ser	Pro	Ala	Gly	Ser	Glu	Gly	Thr	Pro	Lys	Gly	Ser	Arg
145					150					155				160	
Pro	Pro	Leu	Ile	Leu	Gln	Ser	Gln	Ser	Leu	Pro	Cys	Ser	Ser	Pro	Arg
			165					170						175	
Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
			180					185					190		
Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
		195					200					205			
Lys	Ala	Ala	Met	Tyr	Asp	Ile	Ile	Ser	Ser	Pro	Ser	Lys	Asp	Ser	Thr
	210					215						220			
Lys	Leu	Thr	Leu	Arg	Leu	Ser	Arg	Val	Arg	Ser	Ser	Asp	Met	Asp	Gln
225					230					235				240	
Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
			245					250						255	
Asp	Ile	Pro	Phe	Asn	Val	Gln	Tyr	Gln	Gly	Gln	Thr	Ser	Lys	Thr	Pro
			260					265					270		
Ile	Thr	Pro	Gln	Asp	Val	Asn	Arg	Pro	Leu	Asn	Ala	Ala	Gln	Cys	Leu

275	280	285
Ser Gln Gln Glu Gln Thr	Ala Phe Leu Pro Ala	Asn Gln Val Pro Val
290	295	300
Leu Gln Gln Asn Thr Ser	Val Ala Thr Lys Gln	Pro Gln Thr Ser Val
305	310	315
Val Gln Asn Gln Gln Gln	Ile Ser Gln Gln Gly	Pro Ile Tyr Asp Glu
325	330	335
Val Glu Leu Asp Ala Leu	Ala Glu Ile Glu Arg	Ile Glu Arg Glu Ser
340	345	350
Ala Ile Glu Arg Glu Arg	Phe Ser Lys Glu Val	Gln Asp Lys Asp Lys
355	360	365
Pro Leu Lys Lys Lys Lys		
370		

<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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120
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180
ctccaccccg tggaaaacat ccccgagatc atcctctact ggaagcatc cagatcttt
240
gatgtgggtg agaatctaac ggtcccgat gagttcacag tggaggagag gcagacgggg
300
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360
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420
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480
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540
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600
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780
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900
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960
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1020

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catatcctgc ggaccgaggg ggccttcggg ctgtacaggg ggctggcccc caacttcacg
 1080
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 1140
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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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Gln	Glu	Ile	Met	Gln	Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu
			20					25					30		
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35					40					45			
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55						60				
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65				70					75					80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
				85					90					95	
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
			100					105					110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115				120						125			
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130					135					140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145				150					155					160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165					170						175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180						185					190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
		195					200						205		
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230						235				240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

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<210> 4187
<211> 1087
<212> DNA
<213> Homo sapiens
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120
gtttctggat ctaccgatgg tctggttgac agcgctggca ctggggacct ctcttacggt
180
taccagggcc gctcctttga acctgtaggt actcggcccc gagtggactc catgagctct
240
gtggaggagg atgactacga cacattgacc gacatcgatt ccgacaagaa tgtcattcgc
300
accaagcaat acctctatgt ggctgacctg gcacggaagg acaagcgtgt tctgcggaaa
360
aagtaccaga tctacttctg gaacattgcc accattgctg tcttctatgc ctttctctg
420
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<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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<212> DNA

<213> Homo sapiens

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 Lys Asp Glu Ala Gly Glu Asn Tyr Ser Lys Asp Gln Gly Gly Arg Thr
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 Gly Glu Asn Val Ser Met Lys Asp Pro Pro Asp Leu Leu Asp Arg Gln
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 Lys Cys Leu Asn Ala Leu Ala Ser Leu Arg His Ala Lys Trp Phe Gln
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 Gln Lys Tyr Ser Trp Ser Val Thr Asp Lys Glu Gly Ala Gly Ser Ser

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 Asn Lys Lys Met Lys Arg Asn Leu Arg Lys Ile Leu Asp Ser Lys Ala
 370 375 380
 Ile Asp Leu Met Asn Ala Leu Met Arg Leu Asn Gln Ile Arg Pro Gly
 385 390 395 400
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 Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln
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 Ala Met Gly Tyr Pro Thr Gly Phe Asp Ala Asp Ile Glu Cys Met Ser
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 Ser Asp Glu Lys Arg Arg Gly Leu Lys Tyr Glu Leu Ile Ser Glu Thr
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<212> DNA

<213> Homo sapiens

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<211> 517

<212> PRT

<213> Homo sapiens

<400> 4192

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 Asp Ala Gln Val Gln Thr Glu Ala Pro Val Pro Val Ser Val Gln Pro
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<210> 4194
 <211> 519
 <212> PRT
 <213> Homo sapiens

<400> 4194
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 Ile Pro Glu Asp Leu Ser Thr Thr Ser Gly Gly Gln Gln Ser Ser Lys
 35 40 45
 Ser Asp Arg Val Val Ala Ser Asn Val Lys Val Glu Thr Gln Ser Asp
 50 55 60
 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
 65 70 75 80
 Asp Leu Arg Met Leu Asp Ala Ser Gly Glu Lys Met Asn Gly Ser His
 85 90 95
 Arg Asp Gln Gly Ser Ser Ala Leu Ser Gly Val Gly Gly Ile Arg Leu
 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
 130 135 140
 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
 165 170 175
 Leu Cys Asn Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu
 180 185 190
 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
 195 200 205
 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
 210 215 220
 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
 245 250 255
 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
 260 265 270
 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
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 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
 290 295 300
 Met Met Lys Ser His Val Met Asp Gln Ala Ile Asn Asn Ala Ile Asn
 305 310 315 320
 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys

340 345 350
 Pro Leu Ala Glu Gly Thr Pro Arg Ser Asn His Ser Ala Gln Asp Ser
 355 360 365
 Ala Val Glu Asn Leu Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
 370 375 380
 Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Gln Asp Ser Thr Asp Thr
 385 390 395 400
 Glu Ser Asn Asn Glu Glu Gln Arg Ser Gly Leu Ile Tyr Leu Thr Asn
 405 410 415
 His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu Glu His
 420 425 430
 Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
 435 440 445
 Leu Arg Val Val Ser Thr Ser Gly Glu Gln Met Lys Val Tyr Lys Cys
 450 455 460
 Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His
 465 470 475 480
 Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
 485 490 495
 Tyr His Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Thr Arg Gly
 500 505 510
 Glu His Arg Phe His Met Ser
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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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 180
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 300
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<210> 4196

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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		20						25					30		
Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
	35					40						45			
Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
	50					55					60				
Arg	Ala	Cys	Tyr	Ser	Ile	Trp	Leu	Leu	Leu	Ala	Pro	Thr	Pro	Pro	Leu
65					70					75					80
Ser	His	Cys	Leu	Gln	Ser	Pro	Gln	Lys	Gln	His	Gln	Val	Cys	Gly	Asp
			85						90					95	
Arg	Arg	Leu	Lys	Ala	Ser	Ser	Thr	Asn	Cys	Pro	Ser	Glu	Lys	Cys	Thr
		100						105					110		
Ala	Trp	Ala	Arg	Tyr	Ser	His	Arg	Met	Asp	Ser	Leu	Gln	Lys	Gln	Asp
	115						120					125			
Leu	Arg	Arg	Pro	Lys	Ile	His	Gly	Ala	Val	Gln	Ala	Ser	Pro	Tyr	Gln
	130					135					140				
Pro	Pro	Thr	Leu	Ala	Ser	Leu	Gln	Arg	Leu	Leu	Trp	Val	Arg	Gln	Ala
145					150					155					160
Ala	Thr	Leu	Asn	His	Ile	Asp	Glu	Val	Trp	Pro	Ser	Leu	Phe	Leu	Gly
			165						170					175	
Asp	Ala	Tyr	Ala	Ala	Arg	Asp	Lys	Ser	Lys	Leu	Ile	Gln	Leu	Gly	Ile
		180					185						190		
Thr	His	Val	Val	Asn	Ala	Ala	Ala	Gly	Lys	Phe	Gln	Val	Asp	Thr	Gly
		195					200						205		
Ala	Lys	Phe	Tyr	Arg	Gly	Met	Ser	Leu	Glu	Tyr	Tyr	Gly	Ile	Glu	Ala
	210					215						220			
Asp	Asp	Asn	Pro	Phe	Phe	Asp	Leu	Ser	Val	Tyr	Phe	Leu	Pro	Val	Ala
225					230					235					240
Arg	Tyr	Ile	Arg	Ala	Ala	Leu	Ser	Val	Pro	Gln	Gly	Arg	Val	Leu	Val

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                245                250                255
His Cys Ala Met Gly Val Ser Arg Ser Ala Thr Leu Val Leu Ala Phe
                260                265                270
Leu Met Ile Tyr Glu Asn Met Thr Leu Val Glu Ala Ile Gln Thr Val
                275                280                285
Gln Ala His Arg Asn Ile Cys Pro Asn Ser Gly Phe Leu Arg Gln Leu
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Gln Val Leu Asp Asn Arg Leu Gly Arg Glu Thr Gly Arg Phe
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<210> 4197

<211> 597

<212> DNA

<213> Homo sapiens

<400> 4197

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gtgggtcatct gtggagggtgg aatcacgggc acttctgtgg cccatcacca atccaaaatg
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240
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420
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<210> 4198

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4198

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Arg Leu Leu Ser Ile Val Gly Arg Gln Arg Ala Ser Pro Gly Trp Gln
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                20                25                30
Met Ala Leu Pro Thr Gln Ala Gln Val Val Ile Cys Gly Gly Gly Ile
                35                40                45
Thr Gly Thr Ser Val Ala His Gln Ser Lys Met Gly Trp Lys Asp
                50                55                60
Ile Val Leu Leu Glu Gln Gly Arg Leu Ala Ala Gly Ser Thr Arg Phe
65                70                75                80
Cys Ala Gly Ile Leu Ser Thr Ala Arg His Leu Thr Ile Glu Gln Lys

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120
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180
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240
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300
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360
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420
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480
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540
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600
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720
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1140

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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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		20						25					30		
Lys	Thr	Thr	Phe	Val	Asn	Val	Ile	Ala	Ser	Gly	Gln	Phe	Ser	Glu	Asp
		35					40					45			
Met	Ile	Pro	Thr	Val	Gly	Phe	Asn	Met	Arg	Lys	Val	Thr	Lys	Gly	Asn
	50					55					60				
Val	Thr	Ile	Lys	Ile	Trp	Asp	Ile	Gly	Gly	Gln	Pro	Arg	Phe	Arg	Ser
65				70					75					80	
Met	Trp	Glu	Arg	Tyr	Cys	Arg	Gly	Val	Asn	Ala	Ile	Val	Tyr	Met	Ile
			85					90					95		
Asp	Ala	Ala	Asp	Arg	Glu	Lys	Ile	Glu	Ala	Ser	Arg	Asn	Glu	Leu	His
			100					105					110		
Asn	Leu	Leu	Asp	Lys	Pro	Gln	Leu	Gln	Gly	Ile	Pro	Val	Leu	Val	Leu
		115					120					125			
Gly	Asn	Lys	Arg	Asp	Leu	Pro	Gly	Ala	Leu	Asp	Glu	Lys	Glu	Leu	Ile
	130					135					140				
Glu	Lys	Met	Asn	Leu	Ser	Ala	Ile	Gln	Asp	Arg	Glu	Ile	Cys	Cys	Tyr
145				150					155					160	
Ser	Ile	Ser	Cys	Lys	Glu	Lys	Asp	Asn	Ile	Asp	Ile	Thr	Leu	Gln	Trp
			165					170					175		
Leu	Ile	Gln	His	Ser	Lys	Ser	Arg	Arg	Ser						
		180						185							

<210> 4201
 <211> 917
 <212> DNA
 <213> Homo sapiens

<400> 4201
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 gcccatgcc ttcgccactg ctaccagcct gtgggaggag gagggagccc atcggaattc
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<210> 4202
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 4202
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 Ile Leu Gly Phe Thr Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr
 35 40 45
 Gln Pro Val Gly Gly Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser
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<210> 4203
<211> 1368
<212> DNA
<213> Homo sapiens
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120
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480
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660
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 960
 gtcttgccct aaaccctcta tttcctaaaa tattgttcct aaatggtatt ttcaagtgtc
 1020
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 1080
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 1260
 aaagagcgtc tccagaagga atctcttaaa acataatgag aggtttggta atgtgatatt
 1320
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 1368

<210> 4204

<211> 80

<212> PRT

<213> Homo sapiens

<400> 4204

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Leu	Phe	Tyr	Asp	Val	Ile	Thr	Trp	Ile	Val	Thr	Gln	Val	Ala	Ile	Ser
		20					25				30				
Tyr	Thr	Val	Val	Pro	Phe	Val	Leu	Leu	Ser	Ile	Lys	Pro	Ser	Leu	Thr
		35				40				45					
Phe	Tyr	Ser	Ser	Trp	Tyr	Tyr	Cys	Leu	His	Ile	Leu	Gly	Ile	Leu	Val
	50				55		60								
Leu	Leu	Leu	Leu	Pro	Val	Lys	Lys	Asn	Ser	Lys	Lys	Lys	Glu	Tyr	Thr
65				70			75						80		

<210> 4205

<211> 6523

<212> DNA

<213> Homo sapiens

<400> 4205

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 240

3397

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1980
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2340
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2400
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<210> 4206

<211> 829

<212> PRT

<213> Homo sapiens

<400> 4206

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Ser Val Ile Val Glu Val Arg Ser Asp Asp Asp Lys Asp Glu Asp Thr			
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His Ser Arg Lys Ser Thr Val Thr Asp Glu Ser Glu Met Gln Asp Met			
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Met Thr Arg Gly Asn Leu Gly Leu Leu Glu Gln Ala Ile Ala Leu Lys			
85	90	95	
Ala Glu Gln Val Arg Thr Val Cys Glu Pro Gly Cys Pro Pro Ala Glu			
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Gln Ser Gln Leu Gly Leu Gly Glu Pro Gly Lys Ala Ala Lys Pro Leu			
115	120	125	
Asp Thr Val Arg Lys Ser Tyr Thr Ser Lys Asp Pro Ser Arg Ala Glu			
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Lys Arg Glu Ile Lys Cys Pro Thr Pro Gly Cys Asp Gly Thr Gly His			
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Val Thr Gly Leu Tyr Pro His His Arg Ser Leu Ser Gly Cys Pro His			
165	170	175	
Lys Asp Arg Ile Pro Pro Glu Ile Leu Ala Met His Glu Asn Val Leu			
180	185	190	
Lys Cys Pro Thr Pro Gly Cys Thr Gly Gln Gly His Val Asn Ser Asn			
195	200	205	
Arg Asn Thr His Arg Ser Leu Ser Gly Cys Pro Ile Ala Ala Ala Glu			
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Lys Leu Ala Lys Ser His Glu Lys Gln Gln Pro Gln Thr Gly Asp Pro			
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Ser Lys Ser Ser Ser Asn Ser Asp Arg Ile Leu Arg Pro Met Cys Phe			
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260	265	270	
Ala Pro Ala Thr Pro Arg Ala Asn Leu Ala Lys Glu Leu Glu Lys Phe			
275	280	285	
Ser Lys Val Thr Phe Asp Tyr Ala Ser Phe Asp Ala Gln Val Phe Gly			
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Lys Arg Met Leu Ala Pro Lys Ile Gln Thr Ser Glu Thr Ser Pro Lys			
305	310	315	320
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465              470              475              480
Arg Lys Tyr Pro Gly Glu Val Thr Leu Thr Asn Phe Lys Leu Lys Phe
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Leu Ser Lys Asp Ile Lys Lys Glu Leu Leu Thr Cys Pro Thr Pro Gly
      500              505              510
Cys Asp Gly Ser Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser
      515              520              525
Leu Ser Gly Cys Pro Leu Ala Asp Lys Ser Leu Arg Asn Leu Met Ala
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545              550              555              560
Gly His Ile Thr Gly Asn Tyr Ala Ser His Arg Ser Leu Ser Gly Cys
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Lys Glu Asp Pro Glu Leu Met Lys Cys Pro Val Pro Gly Cys Val Gly
      595              600              605
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Cys Pro Leu Ala Ala Arg Arg Gln Lys Glu Gly Ser Leu Asn Gly Ser
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Ser Phe Ser Trp Lys Ser Leu Lys Asn Glu Gly Pro Thr Cys Pro Thr
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      675              680              685
Lys Leu Ser Gly Asp Glu Val Leu Ser Pro Lys Phe Lys Thr Ser Asp
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Val Leu Glu Asn Asp Glu Glu Ile Lys Gln Leu Asn Gln Glu Ile Arg
705              710              715              720
Asp Leu Asn Glu Ser Asn Ser Glu Met Glu Ala Ala Met Val Gln Leu
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Gln Ser Gln Ile Ser Ser Met Glu Lys Asn Leu Lys Asn Ile Glu Glu
      740              745              750
Glu Asn Lys Leu Ile Glu Glu Gln Asn Glu Ala Leu Phe Leu Glu Leu
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Ser Gly Leu Ser Gln Ala Leu Ile Gln Ser Leu Ala Asn Ile Arg Leu
      770              775              780
Pro His Met Glu Pro Ile Cys Glu Gln Asn Phe Asp Ala Tyr Val Ser
785              790              795              800
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<210> 4207

<211> 1016

<212> DNA

<213> Homo sapiens

<400> 4207

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<210> 4208

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4208

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Ile Asp Arg Arg Thr Ser Thr Pro Asn Ser Arg Ile Gln Arg Ala Thr
35           40           45
Thr Val Ser Gln Lys Lys Ser Ser Lys Leu Cys Thr Cys Thr Glu Pro
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65           70           75           80
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<211> 863

<212> PRT

<213> Homo sapiens

<400> 4210

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3407

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      805              810              815
Glu Leu Ala Gln Gln Val Asn Pro Glu Glu Ile Gln Leu Gly Glu Asp
      820              825              830
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 <212> DNA
 <213> Homo sapiens

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tagttacaac agactccctg ggctactgt aggggtcaag agcagatttc cagactctca
120
agctggaaaa gagacgtcc acactgcgac gacaaccaac acatgggaca agctgagaaa
180
gtgcactcag gacttcgct gatgtcacca ccatggcaat acttagatcc tgttgcttaa
240
gcataccatg tcgctgaaag agggaaagaa aatgaaagag cgtcctttta aaagacgtaa
300
aattacactt tcactactac tggttcctat ccttgtgcag taaagtacaa cctggccagg
360
gtttaccagc tctacctgca actgagtcag aaaggcaaag tagtcagctt tgtccatgct
420
gtacggaatt tgctccacaa acccccttgc tctaga
456

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<210> 4212
 <211> 81
 <212> PRT
 <213> Homo sapiens

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<400> 4212
Met Leu Lys Gln Gln Asp Leu Ser Ile Ala Met Val Val Thr Ser Arg
1      5      10      15
Glu Val Leu Ser Ala Leu Ser Gln Leu Val Pro Cys Val Gly Cys Arg
20      25      30
Arg Ser Val Glu Arg Leu Phe Ser Ser Leu Arg Val Trp Lys Ser Ala
35      40      45
Leu Asp Pro Tyr Ser Arg Pro Arg Glu Ser Val Val Thr Lys Arg Arg
50      55      60
Arg Ala Arg Ala Phe Ile Phe Ser Ser Glu Lys Leu Gly Ala Ser Asp
65      70      75      80
Pro

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<210> 4213
 <211> 383
 <212> DNA
 <213> Homo sapiens

<400> 4213
 nacgcgtacc tgtgccagcg cgcgcgcttc ttgcgagaga acgagggcct agacgactac
 60
 atggaggcac gcgagggcat gcacctcaag aacgtggact tccgtgagtt catggtggcc
 120
 ttcccggacc cggcccggcc gccctggtac gctgctcgt cggccttctg ggccgcggcg
 180
 ctgctcacgc tgtcgtggcc gctgcgagtg ctggccgagt accgcacggc ctacgcgcac
 240
 taccacgtgg agaagctggt tggcctggag ggcccgggct cggccagcag cgcaggcggg
 300
 ggcttcagcc ccagcgatga gctgctgccc ccgctcacc accgctgcc gcgggtcaac
 360
 acagtagaca gcacggagct cgg
 383

<210> 4214
 <211> 127
 <212> PRT
 <213> Homo sapiens

<400> 4214
 Xaa Ala Tyr Leu Cys Gln Arg Ala Arg Phe Phe Ala Glu Asn Glu Gly
 1 5 10 15
 Leu Asp Asp Tyr Met Glu Ala Arg Glu Gly Met His Leu Lys Asn Val
 20 25 30
 Asp Phe Arg Glu Phe Met Val Ala Phe Pro Asp Pro Ala Arg Pro Pro
 35 40 45
 Trp Tyr Ala Cys Ser Ser Ala Phe Trp Ala Ala Ala Leu Leu Thr Leu
 50 55 60
 Ser Trp Pro Leu Arg Val Leu Ala Glu Tyr Arg Thr Ala Tyr Ala His
 65 70 75 80
 Tyr His Val Glu Lys Leu Phe Gly Leu Glu Gly Pro Gly Ser Ala Ser
 85 90 95
 Ser Ala Gly Gly Gly Leu Ser Pro Ser Asp Glu Leu Leu Pro Pro Leu
 100 105 110
 Thr His Arg Leu Pro Arg Val Asn Thr Val Asp Ser Thr Glu Leu
 115 120 125

<210> 4215
 <211> 939
 <212> DNA
 <213> Homo sapiens

<400> 4215
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 60
 ctggaagaaa gcaaagaaat ggatatcaaa cgtaaagaaa ataaaggcaa tgataccctt
 120

ttggccctag agagtacaaa cactgaaaag gagacaagcc tggaggaaac aaaaatcggg
 180
 gagatcctga tccagggcctt gacagaagat atgggtgactg ttttaatccg ggcctgcgtg
 240
 agcatgctgg gagtcctgt ggaccagat actttgcatg ccaccctttg tttctgttg
 300
 agggtcactc ggggccccca attagccatg atgtttgcag aactgaagaa taccgcgatg
 360
 atcttgaatt tgaccagag ctcaggcttc aatgggttta ctcccctggt cacccttctc
 420
 ttaagacaca tcattgagga cccctgtacc ctctgcata ccatggaaaa ggttgttcgc
 480
 tcagcagcta caagtggagc tggtagcact acctctggtg ttgtgtctgg cagcctcggc
 540
 tctcgggaga tcaactacat ccttcgtgtc cttgggccag ccgcatgccg caatccagac
 600
 atattcacag aagtggccaa ctgctgtatc cgcctcgccc ttctgcccc tcgaggctca
 660
 ggaactgctt cagatgatga atttgagaat cttagaatta aaggccctaa tgctgtacag
 720
 ctggtgaaga ccaccctttt gaagccctca cctctgctg tcatccctga tactatcaag
 780
 gaagtgatct atgatatgct gaatgctctg gctgcatacc atgctccaga ggaagcagat
 840
 aaatctgatc ctaaacctgg ggttatgacc caagaggttg gccagctcct gcaagacatg
 900
 ggtgatgatg tataccagca gtaccggtca cttacgcgt
 939

<210> 4216

<211> 287

<212> PRT

<213> Homo sapiens

<400> 4216

Met	Asp	Ile	Lys	Arg	Lys	Glu	Asn	Lys	Gly	Asn	Asp	Thr	Pro	Leu	Ala
1				5					10					15	
Leu	Glu	Ser	Thr	Asn	Thr	Glu	Lys	Glu	Thr	Ser	Leu	Glu	Glu	Thr	Lys
			20					25					30		
Ile	Gly	Glu	Ile	Leu	Ile	Gln	Gly	Leu	Thr	Glu	Asp	Met	Val	Thr	Val
		35				40					45				
Leu	Ile	Arg	Ala	Cys	Val	Ser	Met	Leu	Gly	Val	Pro	Val	Asp	Pro	Asp
	50					55				60					
Thr	Leu	His	Ala	Thr	Leu	Cys	Phe	Cys	Leu	Arg	Val	Thr	Arg	Gly	Pro
65					70				75					80	
Gln	Leu	Ala	Met	Met	Phe	Ala	Glu	Leu	Lys	Asn	Thr	Arg	Met	Ile	Leu
			85					90						95	
Asn	Leu	Thr	Gln	Ser	Ser	Gly	Phe	Asn	Gly	Phe	Thr	Pro	Leu	Val	Thr
		100					105					110			
Leu	Leu	Leu	Arg	His	Ile	Ile	Glu	Asp	Pro	Cys	Thr	Leu	Arg	His	Thr
		115				120						125			
Met	Glu	Lys	Val	Val	Arg	Ser	Ala	Ala	Thr	Ser	Gly	Ala	Gly	Ser	Thr
	130					135					140				
Thr	Ser	Gly	Val	Val	Ser	Gly	Ser	Leu	Gly	Ser	Arg	Glu	Ile	Asn	Tyr

145 150 155 160
 Ile Leu Arg Val Leu Gly Pro Ala Ala Cys Arg Asn Pro Asp Ile Phe
 165 170 175
 Thr Glu Val Ala Asn Cys Cys Ile Arg Ile Ala Leu Pro Ala Pro Arg
 180 185 190
 Gly Ser Gly Thr Ala Ser Asp Asp Glu Phe Glu Asn Leu Arg Ile Lys
 195 200 205
 Gly Pro Asn Ala Val Gln Leu Val Lys Thr Thr Pro Leu Lys Pro Ser
 210 215 220
 Pro Leu Pro Val Ile Pro Asp Thr Ile Lys Glu Val Ile Tyr Asp Met
 225 230 235 240
 Leu Asn Ala Leu Ala Ala Tyr His Ala Pro Glu Glu Ala Asp Lys Ser
 245 250 255
 Asp Pro Lys Pro Gly Val Met Thr Gln Glu Val Gly Gln Leu Leu Gln
 260 265 270Met Gly Asp Asp
 Val Tyr Gln Gln Tyr Arg Ser Leu Thr Arg
 275 280 285

<210> 4217

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4217

acacacacac gcacacaaaa ctcagccaca ggctcaccag ggtctctctc aacatgcaca
 60
 catacacaca cacaccctc agtcataggc tcacaagagt ctctcttgct tctctctcat
 120
 acatacacac acacacacaa ccagccacag gccacaaaag gtgtctctct ctttgtccct
 180
 gtctgtctct tcgcactcac acacacacat ctcagccaca ggcccaccag agtctgtctg
 240
 tctctttgtc tctctcactc tctctcacac acatacacct cagccacagg cccacaaggg
 300
 tctctctctc tgtccctggc tcctctctct cgcacactcc cacacacaca catacagctc
 360
 agccacaggc ccacgagggt gtctctctct ctctctctct ctcacacaca cacacacaca
 420
 cacacacgcc tgtgcagctc cacaggggcc tggggcagga gacagatctg aatacacata
 480
 ccacctgtg ctgtgagtgg ccactcccat ccaacaactg agactttctg ttactggggc
 540
 aagggtttct gccaaactca cttcccttat aatgaatgaa ttatccctca gaaggttcca
 600
 cagtcctccc ctggcgcg
 619

<210> 4218

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4218

Met His Thr Tyr Thr His Thr Pro Leu Ser His Arg Leu Thr Arg Val

1	5	10	15
Ser Leu Val	Ser Leu Ser Tyr Ile His Thr His Thr Gln Pro Ala Thr		
	20	25	30
Gly Pro Gln Arg Cys Leu Ser Leu Cys Pro Cys Leu Leu Ser Arg Thr			
	35	40	45
His Thr His Thr Ser Gln Pro Gln Ala His Gln Ser Leu Ser Val Ser			
	50	55	60
Leu Ser Leu Ser Leu Ser Leu Thr His Ile His Leu Ser His Arg Pro			
65	70	75	80
Thr Arg Val Ser Leu Leu Val Pro Gly Ser Ser Leu Ser His Thr Pro			
	85	90	95
Thr His Thr His Thr Ala Gln Pro Gln Ala His Glu Gly Val Ser Leu			
	100	105	110
Ser Leu Ser Leu Ser His Thr His Thr His Thr His Thr Pro Val Gln			
	115	120	125
Leu His Arg Gly Leu Gly Gln Glu Thr Asp Leu Asn Thr His Thr Thr			
	130	135	140
Leu Cys Cys Glu Trp Pro Leu Pro Ser Asn Asn			
145	150	155	

<210> 4219

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4219

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ngcggccgcg cacctgctcc cgctgcccta cagcaagatc acgccccgc ggaggcccca
60
ccgctgcagc agcggccacg gcagcgacaa cagcagcgtg ctgagcgggg agctcccgcc
120
ggccatgggg aagacggccc tggtctacca cagcggcggc agcagcggct acgagagcgt
180
gatgcgggac agcagaggcca ccggcagcgc gtcctcggcg caggactcca cgagcgagaa
240
cagcagctcc gtgggcggca ggtgccggag cctcaagacc ccgaagaaac gctccaatcc
300
aggttctcag agacggaggc ttatcccagc actatccctg gacacctctt cccctgtgag
360
aaaaccccc aacagcacag gcgtccgctg ggtggatggn nccccttgcg gagcagcccg
420
aggggccttg gggaaccttt gagattaaag tctnatgaaa tcgatgacgt ggagcgcctg
480
cagcggcgac gagggggtgc cagcaaggag gccatgtgct tcaatgcaaa gctgaagatt
540
ctggaacacc gccagcagag gatcgccgag gtccgcgcga agtacgagtg gctgatgaag
600
gagctggagg cgaccaaaca gtatctgatg ctggatccca acaagtggct cagtgaattt
660
gacttggagc aggtttggga gctggattcc ctggagtacc tggaggcact ggagtgtgtg
720
acggagcgcc tggagagccg tgtcaacttc tgcaaggccc atctcatgat gctc
774

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<210> 4220

<211> 258
 <212> PRT
 <213> Homo sapiens

<400> 4220
 Xaa Gly Arg Ala Pro Ala Pro Val Ala Leu Gln Gln Asp His Ala Pro
 1 5 10 15
 Ala Glu Ala Pro Pro Leu Gln Gln Arg Pro Arg Gln Arg Gln Gln Gln
 20 25 30
 Arg Ala Glu Arg Gly Ala Pro Ala Gly His Gly Glu Asp Gly Pro Val
 35 40 45
 Leu Pro Gln Arg Arg Gln Gln Arg Leu Arg Glu Arg Asp Ala Gly Gln
 50 55 60
 Arg Gly His Arg Gln Arg Val Leu Gly Ala Gly Leu His Glu Arg Glu
 65 70 75 80
 Gln Gln Leu Arg Gly Arg Gln Val Pro Glu Pro Gln Asp Pro Glu Glu
 85 90 95
 Thr Leu Gln Ser Arg Phe Ser Glu Thr Glu Ala Tyr Pro Ser Thr Ile
 100 105 110
 Pro Gly His Leu Phe Pro Cys Glu Lys Thr Pro Gln Gln His Arg Arg
 115 120 125
 Pro Leu Gly Gly Trp Xaa Pro Leu Arg Ser Ser Pro Arg Gly Leu Gly
 130 135 140
 Glu Pro Leu Arg Leu Lys Ser Xaa Glu Ile Asp Asp Val Glu Arg Leu
 145 150 155 160
 Gln Arg Arg Arg Gly Gly Ala Ser Lys Glu Ala Met Cys Phe Asn Ala
 165 170 175
 Lys Leu Lys Ile Leu Glu His Arg Gln Gln Arg Ile Ala Glu Val Arg
 180 185 190
 Ala Lys Tyr Glu Trp Leu Met Lys Glu Leu Glu Ala Thr Lys Gln Tyr
 195 200 205
 Leu Met Leu Asp Pro Asn Lys Trp Leu Ser Glu Phe Asp Leu Glu Gln
 210 215 220
 Val Trp Glu Leu Asp Ser Leu Glu Tyr Leu Glu Ala Leu Glu Cys Val
 225 230 235 240
 Thr Glu Arg Leu Glu Ser Arg Val Asn Phe Cys Lys Ala His Leu Met
 245 250 255
 Met Leu

<210> 4221
 <211> 789
 <212> DNA
 <213> Homo sapiens

<400> 4221
 aatgtgaaga ggattaaaga ataaagaaaa aacaaaaaag tcttatacta aaataagaaa
 60
 tcagccccat cttggcacag ttctcatgca gaatattgca cccagtgtga actaacgcta
 120
 gaagcttcaa actgtataaa tttaaatgta ttgcatatt ataaaaataa agataaacat
 180
 atacatatatt tacactagtt atggaacagc aatgaacgtc agtcgatccc tctttcacat
 240

ttaacagaac tgaaatctga gtgctctaaa tactgccacc tgtactgtaa ctatggctta
 300
 tatgtgcacg gaaaacaaaa tccctgagaa gccattcgac tttttttttt tttcttttct
 360
 tcaagtagcg cgctccttgg aggatcacag ttctgaggtt cagggtgtaa aacatttgct
 420
 ccatgtttct gtccatgctt cccccaccca cccctcccc acctcttccc cagtcgtcca
 480
 aaaagcacc tgcaagcacg cgttgctact caagttcaca gaacacgctg gggtgagtgc
 540
 agagggtctg ccagggtcaa aagatgggtcc aggtgttcag atgctctctt tttccatgg
 600
 aaattccaca gccacaaacg tactgggtt ctgtgctttt caccaacatt cttcccttaa
 660
 aaattgggtc tcctaaagtc acagtttggg tacagtaaaa atgatggcat aaggaaaaga
 720
 agcactatct tttccactta atttccaag aaagtatgaa gatacttga acaggggctg
 780
 atcacagtc
 789

<210> 4222

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4222

Met	Ala	Tyr	Met	Cys	Thr	Glu	Asn	Lys	Ile	Pro	Glu	Lys	Pro	Phe	Asp
1				5					10					15	
Phe	Phe	Phe	Phe	Ser	Phe	Leu	Gln	Val	Ala	Arg	Ser	Leu	Glu	Asp	His
			20					25					30		
Ser	Ser	Glu	Val	Gln	Val	Val	Lys	His	Leu	Leu	His	Val	Leu	Val	His
		35					40					45			
Ala	Ser	Pro	His	His	Pro	Leu	Pro	Thr	Ser	Ser	Pro	Val	Val	Gln	Lys
	50				55					60					
Ala	Pro	Cys	Lys	His	Ala	Leu	Ser	Leu	Lys	Phe	Thr	Glu	His	Ala	Gly
65				70					75					80	
Val	Ser	Ala	Glu	Gly	Leu	Pro	Gly	Ala	Lys	Asp	Gly	Pro	Gly	Val	Gln
			85					90					95		
Met	Leu	Ser	Phe	Leu	His	Gly	Asn	Ser	Thr	Ala	Thr	Asn	Val	Thr	Gly
		100					105						110		
Phe	Cys	Ala	Phe	His	Gln	His	Ser	Ser	Leu	Lys	Asn	Trp	Cys	Ser	
		115					120					125			

<210> 4223

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4223

atcctggacc agggctacta ctcggagcga gacacaagca acgtggtagc gcaagtcctg
 60
 gaggccgtgg cctatttgca ctactcaag atcgtgcaca ggaatctcaa gctggagaac
 120

ctggtttact acaaccggct gaagaactcg aagattgtca tcagtgactt ccatctggct
 180
 aagctagaaa atggcctcat caaggagccc tgtgggaccc ccgaagattt tgcccccaa
 240
 ggggaaggcc ggcagcggta tggacgcctt gtggactgct gggccattgg agtcatcatg
 300
 tacatcctgc ttccaggcaa tccacctttc tatgaggagg tggaagaaga tgattatgag
 360
 aaccatgata agaatctctt ccgcaagatc ctggctgggtg actatgagtt tgactctcca
 420
 tattgggatg atatttcgca ggcagccaaa gacctgggtca caaggctgat ggaggtggag
 480
 caagaccagc ggatcactgc agaagaggcc atctcccatg agtggatttc tggcaatgct
 540
 gcttctgata agaacatcaa ggatgggtgc tgtgcccaga ttgaaaagaa ctttgccagg
 600
 gccaaagtga agaaggctgt ccgagtgacc acctcatga aacggctccg ggcaccagag
 660
 cagtccagca cggctgcagc ccagtcggcc tcagccacag aactgccac ccccggggct
 720
 gcagaccgta gtgccacccc agccacagat ggaagtgcc cccagccac tgatggcagt
 780
 gtcaccccag ccaccgatgg aagcatcact ccagccattg atgggagtgt caccacagcc
 840
 actgacagga gc
 852

<210> 4224

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4224

Ile	Leu	Asp	Gln	Gly	Tyr	Tyr	Ser	Glu	Arg	Asp	Thr	Ser	Asn	Val	Val
1				5					10					15	
Arg	Gln	Val	Leu	Glu	Ala	Val	Ala	Tyr	Leu	His	Ser	Leu	Lys	Ile	Val
			20					25					30		
His	Arg	Asn	Leu	Lys	Leu	Glu	Asn	Leu	Val	Tyr	Tyr	Asn	Arg	Leu	Lys
		35					40					45			
Asn	Ser	Lys	Ile	Val	Ile	Ser	Asp	Phe	His	Leu	Ala	Lys	Leu	Glu	Asn
		50				55					60				
Gly	Leu	Ile	Lys	Glu	Pro	Cys	Gly	Thr	Pro	Glu	Asp	Phe	Ala	Pro	Gln
65				70						75				80	
Gly	Glu	Gly	Arg	Gln	Arg	Tyr	Gly	Arg	Pro	Val	Asp	Cys	Trp	Ala	Ile
			85					90					95		
Gly	Val	Ile	Met	Tyr	Ile	Leu	Leu	Ser	Gly	Asn	Pro	Pro	Phe	Tyr	Glu
		100						105					110		
Glu	Val	Glu	Glu	Asp	Asp	Tyr	Glu	Asn	His	Asp	Lys	Asn	Leu	Phe	Arg
		115				120					125				
Lys	Ile	Leu	Ala	Gly	Asp	Tyr	Glu	Phe	Asp	Ser	Pro	Tyr	Trp	Asp	Asp
	130				135						140				
Ile	Ser	Gln	Ala	Ala	Lys	Asp	Leu	Val	Thr	Arg	Leu	Met	Glu	Val	Glu
145					150					155				160	
Gln	Asp	Gln	Arg	Ile	Thr	Ala	Glu	Glu	Ala	Ile	Ser	His	Glu	Trp	Ile

```

                165                170                175
Ser Gly Asn Ala Ala Ser Asp Lys Asn Ile Lys Asp Gly Val Cys Ala
                180                185                190
Gln Ile Glu Lys Asn Phe Ala Arg Ala Lys Trp Lys Lys Ala Val Arg
                195                200                205
Val Thr Thr Leu Met Lys Arg Leu Arg Ala Pro Glu Gln Ser Ser Thr
                210                215                220
Ala Ala Ala Gln Ser Ala Ser Ala Thr Asp Thr Ala Thr Pro Gly Ala
225                230                235                240
Ala Asp Arg Ser Ala Thr Pro Ala Thr Asp Gly Ser Ala Thr Pro Ala
                245                250                255
Thr Asp Gly Ser Val Thr Pro Ala Thr Asp Gly Ser Ile Thr Pro Ala
                260                265                270
Ile Asp Gly Ser Val Thr Pro Ala Thr Asp Arg Ser
                275                280

```

<210> 4225

<211> 470

<212> DNA

<213> Homo sapiens

<400> 4225

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nntgtacaag aaagtgagcc agtcatcgtc aatattcaag tgatggatgc aaatgataac
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acgccaacct tccctgaaat atcctatgat gtgtatgttt atacagacat gagacctggg
120
gacagggtcc tacagttaac tgcagtcgac gcagacgaag ggtcaaattgg ggagatcaca
180
tatgaaatcc ttgttggggc tcaggggagac ttcatcatca ataaaacaac agggcttatc
240
accatcgctc caggggtgga aatgatagtc gggcggactt acgcactccc ggtccaagca
300
gcgataatg ctctctctgc aaagcaaagg actcccatct gcactgtgta tattgaagtg
360
cttccaccaa ataatcaaag cctcctctgc tccccacagc tgatgtatag ccttgaaatt
420
agtgaagcca tgagggttgg tgctgtttta ttaaactctac aggcaactga
470

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<210> 4226

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4226

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Xaa Val Gln Glu Ser Glu Pro Val Ile Val Asn Ile Gln Val Met Asp
  1                5                10                15
Ala Asn Asp Asn Thr Pro Thr Phe Pro Glu Ile Ser Tyr Asp Val Tyr
                20                25                30
Val Tyr Thr Asp Met Arg Pro Gly Asp Arg Val Leu Gln Leu Thr Ala
                35                40                45
Val Asp Ala Asp Glu Gly Ser Asn Gly Glu Ile Thr Tyr Glu Ile Leu
                50                55                60
Val Gly Ala Gln Gly Asp Phe Ile Ile Asn Lys Thr Thr Gly Leu Ile

```

```

65              70              75              80
Thr Ile Ala Pro Gly Val Glu Met Ile Val Gly Arg Thr Tyr Ala Leu
              85              90              95
Pro Val Gln Ala Ala Asp Asn Ala Pro Pro Ala Lys Gln Arg Thr Pro
              100              105              110
Ile Cys Thr Val Tyr Ile Glu Val Leu Pro Pro Asn Asn Gln Ser Pro
              115              120              125
Pro Arg Phe Pro Gln Leu Met Tyr Ser Leu Glu Ile Ser Glu Ala Met
              130              135              140
Arg Val Gly Ala Val Leu Leu Asn Leu Gln Ala Thr
145              150              155

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<210> 4227

<211> 1199

<212> DNA

<213> Homo sapiens

<400> 4227

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nnaagcttat ggccagtgtt aatttggtat ttcttaaata actttccctt tcatttttaa
60
attataaatt taacttctaa catgttttat ggtaaaaatt gtactttttt ctttagcga
120
cattcaaatg catcacaatc actttgtgaa attgttcgcc tgagcagaga ccagatgtta
180
caaattcaga acagtacaga gcccgacccc ctgcttgcca ctctagaaaa gcaagaaatt
240
atagagcagc ttctatcaaa tattttccac aaggagaaaa atgagtcagc catagtcagt
300
gcaatccaga tattgctgac tttacttgag acacgacgac caacatttga aggccatata
360
gagatctgcc caccaggcat gagccattca gcttgctcag taaacaagag tgttctagaa
420
gccatcagag gaagacttgg atcttttcat gaactcctgc tggagccacc caagaaaagt
480
gtgatgaaga ccacatgggg tgtgctggat cctcctgtgg ggaatacccg gttgaatgtc
540
attaggttga tatccagcct gcttcaaacc aataccagca gtataaatgg ggaccttatg
600
gagctgaata gcattggagt catattgaac atgttcttca agtatacatg gaataacttt
660
ttgcatacac aagtggaaat ttgtattgca ctgattcttg caagtccttt tgaaaacaca
720
gaaaatgcca caattaccga tcaagactcc actggtgata atttgttatt aaaacatctt
780
ttccaaaaat gtcaattaat agaacgaata cttgaagcct gggaaatgaa tgagaagaaa
840
caggctgagg gaggaagacg gcatggttac atgggacacc taacgaggat agctaactgt
900
atcgtgcaca gcactgacaa gggccccaac agtgcattag tgcagcagct tatcaaaggt
960
aagttatttg tgaaatttga attacatttt tgttggttg caggaaggat ttaagggcta
1020
agtagaaatg catgtagcat ttttaatagt gatttgtggg acttctttat atttgcaaaa
1080

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ttatgtattt gaatgaggtt cttgagaatg tgtttgaaca gggttgtttt ttgggttgta
 1140
 ttttatgttc atgtagttac agaccattcc ataagcattg gcaggcttgg ctggattca
 1199

<210> 4228

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4228

Arg His Ser Asn Ala Ser Gln Ser Leu Cys Glu Ile Val Arg Leu Ser
 1 5 10 15
 Arg Asp Gln Met Leu Gln Ile Gln Asn Ser Thr Glu Pro Asp Pro Leu
 20 25 30
 Leu Ala Thr Leu Glu Lys Gln Glu Ile Ile Glu Gln Leu Leu Ser Asn
 35 40 45
 Ile Phe His Lys Glu Lys Asn Glu Ser Ala Ile Val Ser Ala Ile Gln
 50 55 60
 Ile Leu Leu Thr Leu Leu Glu Thr Arg Arg Pro Thr Phe Glu Gly His
 65 70 75 80
 Ile Glu Ile Cys Pro Pro Gly Met Ser His Ser Ala Cys Ser Val Asn
 85 90 95
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 Cys Gln Leu Ile Glu Arg Ile Leu Glu Ala Trp Glu Met Asn Glu Lys
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 Lys Gln Ala Glu Gly Gly Arg Arg His Gly Tyr Met Gly His Leu Thr
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 Arg Ile Ala Asn Cys Ile Val His Ser Thr Asp Lys Gly Pro Asn Ser
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<210> 4229

<211> 1612

<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

<400> 4230

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Trp Lys His Arg Lys Glu His Ala Ile Pro His Val Val Leu Gly Arg
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Asn Leu Pro Gly Gly Ala Trp His Ser Ile Glu Gly Ser Met Val Ile
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Leu Ser Gln Gly Gln Trp Met Gly Leu Pro Asp Leu Glu Val Lys Asp
85 90 95
Trp Met Gln Lys Lys Arg Arg Gly Leu Arg Asn Ser Arg Ala Thr Ala
100 105 110
Gly Asp Ile Ala His Tyr Tyr Arg Asp Tyr Val Val Lys Lys Gly Leu
115 120 125
Gly His Asn Phe Val Ser Gly Ala Val Val Thr Ala Val Glu Trp Gly
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Thr Pro Asp Pro Ser Ser Cys Gly Ala Gln Asp Ser Ser Pro Leu Phe
145 150 155 160
Gln Val Ser Gly Phe Leu Thr Arg Asn Gln Ala Gln Gln Pro Phe Ser
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195 200 205
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210 215 220
Ser Asp Pro Val Leu Ile Ile Gly Ala Gly Leu Ser Ala Ala Asp Ala
225 230 235 240
Val Leu Tyr Ala Arg His Tyr Asn Ile Pro Val Ile His Ala Phe Arg
245 250 255
Arg Ala Val Asp Asp Pro Gly Leu Val Phe Asn Gln Leu Pro Lys Met
260 265 270
Leu Tyr Pro Glu Tyr His Lys Val His Gln Met Met Arg Glu Gln Ser
275 280 285
Ile Leu Ser Pro Ser Pro Tyr Glu Gly Tyr Arg Ser Leu Pro Arg His
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Gln Leu Leu Cys Phe Lys Glu Asp Cys Gln Ala Val Phe Gln Asp Leu
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Glu Gly Val Glu Lys Val Phe Gly Val Ser Leu Val Leu Val Leu Ile
325 330 335
Gly Ser His Pro Asp Leu Ser Phe Leu Pro Gly Ala Gly Ala Asp Phe
340 345 350
Ala Val Asp Pro Asp Gln Pro Leu Ser Ala Lys Arg Asn Pro Ile Asp

3421

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<210> 4232

<211> 434

<212> PRT

<213> Homo sapiens

<400> 4232

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Glu	Glu	Lys	Lys	Ile	Leu	Ala	Ile	Glu	Leu	Glu	Asn	Leu	Lys	Ser	Lys
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Leu	Val	Glu	Val	Ile	Glu	Glu	Val	Asn	Lys	Val	Lys	Gln	Glu	Lys	Thr
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Gln	Glu	Met	Phe	Leu	Glu	Pro	Asn	Gln	Gly	Lys	Lys	Thr	Lys	Pro	Pro
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 355 360 365
 Ser Ser Pro Thr Gly Ile Leu Ala Thr Ser Glu Ser Lys Ser Met Pro
 370 375 380
 Val Leu Gly Ser Val Ser Ser Val Thr Lys Thr Ala Leu Asn Lys Lys
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<210> 4233

<211> 2827

<212> DNA

<213> Homo sapiens

<400> 4233

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<211> 833

<212> PRT

<213> Homo sapiens

<400> 4234

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Thr	Cys	Lys	Val	His	Thr	Ser	Pro	Pro	Met	Tyr	Ser	Leu	Asp	Arg	Ile
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Ser	Trp	Ile	Gln	Lys	Pro	Asp	Ser	Val	Cys	Ser	Leu	Val	Glu	Leu	Ser
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		115					120					125			
Lys	Ile	Asp	Cys	Leu	Gln	Glu	Ser	Gln	Glu	Leu	Asn	Leu	Gln	Lys	Leu
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Arg Lys Leu Arg Glu Glu Asn Glu Lys Arg Lys Gln Leu Asp Ala Val		285
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Gln Glu Glu Gly Leu Lys Pro Lys Ala Glu Asp Leu Asp Ala Cys Asn		320
	325	330
Leu Lys Arg Arg Lys Gly Ser Phe Gly Ser Ile Asp His Leu Gln Lys		335
	340	345
Leu Asp Glu Gln Lys Lys Trp Leu Asp Glu Glu Val Glu Lys Val Leu		350
	355	360
Asn Gln Arg Gln Glu Leu Glu Glu Leu Glu Ala Asp Leu Lys Lys Arg		365
	370	375
Glu Ala Ile Val Ser Lys Lys Glu Ala Leu Leu Gln Glu Lys Ser His		380
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Leu Glu Asn Lys Lys Leu Arg Ser Ser Gln Ala Leu Asn Thr Asp Ser		400
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Leu Lys Ile Ser Thr Arg Leu Asn Leu Leu Glu Gln Glu Leu Ser Glu		415
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Lys Asn Val Gln Leu Gln Thr Ser Thr Ala Glu Glu Lys Thr Lys Ile		430
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Ser Glu Gln Val Glu Val Leu Gln Lys Glu Lys Asp Gln Leu Gln Lys		445
	450	455
Arg Arg His Asp Val Asp Glu Lys Leu Lys Asn Gly Arg Val Leu Ser		460
465	470	475
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Leu Glu Ala Ala Ile Glu Tyr Arg Asn Glu Ser Ile Gln Asn Arg Gln		495
	500	505
Lys Ser Leu Arg Ala Ser Phe His Asn Leu Ser Arg Gly Glu Ala Asn		510
	515	520
Val Leu Glu Lys Leu Ala Cys Leu Ser Pro Val Glu Ile Arg Thr Ile		525
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Lys Gln Gln Leu Tyr Asn Glu Glu Met Lys Met Lys Val Leu Glu Arg		560
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Asp Asn Met Val Arg Glu Leu Glu Ser Ala Leu Asp His Leu Lys Leu		575
	580	585
Gln Cys Asp Arg Arg Leu Thr Leu Gln Gln Lys Glu His Glu Gln Lys		590
	595	600
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<211> 198

<212> PRT

<213> Homo sapiens

<400> 4236

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			20					25					30		
Ser	Phe	Thr	Thr	Ser	Thr	Thr	Thr	Ala	Thr	Phe	Thr	Thr	Asn	Thr	
		35				40				45					
Thr	Thr	Thr	Ile	Thr	Ser	Gly	Phe	Thr	Val	Asn	Gln	Asn	Gln	Leu	Leu
		50				55				60					
Ser	Arg	Gly	Phe	Glu	Asn	Leu	Val	Pro	Tyr	Thr	Ser	Thr	Val	Ser	Val
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Val	Ala	Thr	Pro	Val	Met	Thr	Tyr	Gly	His	Leu	Glu	Gly	Leu	Ile	Asn
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Glu	Trp	Asn	Leu	Glu	Leu	Glu	Asp	Gln	Glu	Lys	Tyr	Phe	Leu	Leu	Gln
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Ala	Thr	Gln	Val	Asn	Ala	Trp	Asp	His	Thr	Leu	Ile	Glu	Asn	Gly	Glu
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Leu	Glu	Phe	Leu	Leu	Thr	Tyr	Leu	Glu	Glu	Ser	Thr	Arg	Asp	Gln	Ser
			165					170					175		
Gly	Leu	His	Tyr	Leu	Gln	Asp	Ala	Asp	Glu	Glu	His	Val	Glu	Ile	Ser
			180					185					190		
Thr	Arg	Ser	Ala	Glu	Phe										
			195												

<210> 4237

<211> 560

<212> DNA

<213> Homo sapiens

<400> 4237

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 120
 aattgtctcg ccagtgtcag gaggaggtac cggcattcct ggccatcctc ttcaccctcc
 180
 ccacaccgtt tctctttcca ctccccggaa ctctccctg tccccatcct ggactccttg
 240
 tcctgttttt tggactcctt gtctgttttc ctggactcct tgcagatcgc cagggcaatg
 300
 ggcgtagcag acgaggccct gggcaatgtg cggactgtgc gtgccttcgc catggagcaa
 360
 cggaagagg agcgctatgg ggcagagctg gaagcctgcc gctgccgagc agaggagctg
 420
 ggccgcggca tcgcttggtt ccaagggctt tccaacatcg ccttcaactg tgagtgaagc
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<210> 4238

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4238

Trp	Ala	Gln	Ala	Ser	Glu	Asn	Cys	Leu	Ala	Ser	Val	Arg	Ser	Arg	Tyr
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Arg	His	Ser	Trp	Pro	Ser	Ser	Ser	Pro	Ser	Pro	His	Arg	Phe	Ser	Phe
			20					25					30		
His	Ser	Pro	Glu	Leu	Leu	Pro	Val	Pro	Ile	Leu	Asp	Ser	Leu	Ser	Cys
		35				40					45				
Phe	Leu	Asp	Ser	Leu	Ser	Cys	Phe	Leu	Asp	Ser	Leu	Gln	Ile	Ala	Arg
	50					55				60					
Ala	Met	Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg
65					70					75				80	
Ala	Phe	Ala	Met	Glu	Gln	Arg	Glu	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu
			85					90						95	
Glu	Ala	Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu
		100						105					110		
Phe	Gln	Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Glu				
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<210> 4239

<211> 3127

<212> DNA

<213> Homo sapiens

<400> 4239

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 120
 aagaccagca aaaagttcaa gttcttcaag ttcaagggtt ttgggagtct ctccaacctc
 180

cctcggtcct tcactctgag acgatcctca gcttccatca gtaggcagtc ccatttggag
240
cctgacacct ttgaagccac gcaggatgac atggtgacgg tgcccaagag tccccagcc
300
tatgcccgtt ccagtgcacat gtacagccac atgggcacca tgctcgccc cagcatcaag
360
aaagcacaga actcacaggc tgcccggcag gcccaggagg cgggtcccaa gcccaacttg
420
gtacccggag gtgtaccga cccccaggc ttggaggcag ccaaaggagt gatggtgaag
480
gccactggcc ctctagagga cccccagca atggaacca acccttcagc agtggaggta
540
gaccccatca gaaagcctga ggtcccaca ggagacgtag aagaggagag acctccagg
600
gacgtgcact cagaaagggc tgctggagag ccagaggctg gcagcgacta tgtgaagttc
660
tccaaggaga agtacatcct ggactcatcg ccagagaaac tccacaagga attggaggag
720
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780
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960
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1140
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1380
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1620
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1800

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1920
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2340
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2760
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3127

<210> 4240

<211> 860

<212> PRT

<213> Homo sapiens

<400> 4240

Met Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys

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450	455	460
Lys Gly Pro His Thr Ser	Pro Ser His Thr Leu Gly Lys Ala Ser Pro	
465	470	475
Ser Pro Ser Leu Ser Ser Tyr Ser Asp	Pro Asp Ser Gly His Tyr Cys	480
485	490	495
Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu		
500	505	510
Thr Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu		
515	520	525
Ser Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val		
530	535	540
Pro Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser		
545	550	555
Leu Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg		
565	570	575
Lys Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg		
580	585	590
His Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr		
595	600	605
Lys Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu		
610	615	620
Thr Leu Pro His Gly Arg Gln Leu Arg Leu Asp Leu Leu Glu Arg Phe		
625	630	635
His Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly		
645	650	655
Ser Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala		
660	665	670
Ala Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val		
675	680	685
Met Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp		
690	695	700
Val Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys		
705	710	715
Lys Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro		
725	730	735
Pro Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu		
740	745	750
Leu Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser		
755	760	765
Thr Glu His Gly Val Glu Val Leu Ala His Leu Glu Ala Ala Arg		
770	775	780
Thr Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys		
785	790	795
Leu Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr		
805	810	815
Glu Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser		
820	825	830
Gln Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser		
835	840	845
His Lys Leu Glu Pro Ala Val Arg Ser Ser Glu Leu		
850	855	860

<210> 4241

<211> 479

<212> DNA

<213> Homo sapiens

<400> 4241

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 120
 aagatggacc tgttgcaagt gatccaaagc aaaactcaga gcgacggctc caccctgcag
 180
 cagggctcct tggagttctt cagctgcttg tacgagatcc aggaggagga gtttatccag
 240
 caggccctga gccacttcca ggtgatcgtg gtcagcaaca ttgcctccaa gatggagcac
 300
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 360
 gccacctaca gcgcggacgg ggaagaccgc gcgaggtgtc cgcaggagcg cacacgctgt
 420
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 479

<210> 4242

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4242

Xaa	Ala	Phe	Ser	Glu	Arg	Ser	Phe	Leu	Ala	Leu	Thr	Ser	Arg	Phe	Leu
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Phe	Gly	Leu	Leu	Asn	Glu	Glu	Thr	Arg	Ser	His	Leu	Glu	Lys	Ser	Leu
		20					25						30		
Cys	Trp	Lys	Val	Ser	Pro	His	Ile	Lys	Met	Asp	Leu	Leu	Gln	Trp	Ile
		35					40					45			
Gln	Ser	Lys	Thr	Gln	Ser	Asp	Gly	Ser	Thr	Leu	Gln	Gln	Gly	Ser	Leu
	50					55				60					
Glu	Phe	Phe	Ser	Cys	Leu	Tyr	Glu	Ile	Gln	Glu	Glu	Glu	Phe	Ile	Gln
65				70					75					80	
Gln	Ala	Leu	Ser	His	Phe	Gln	Val	Ile	Val	Val	Ser	Asn	Ile	Ala	Ser
			85						90					95	
Lys	Met	Glu	His	Met	Val	Ser	Ser	Phe	Cys	Leu	Lys	Arg	Cys	Arg	Ser
		100						105					110		
Ala	Gln	Val	Leu	His	Leu	Tyr	Gly	Ala	Thr	Tyr	Ser	Ala	Asp	Gly	Glu
		115					120					125			
Asp	Arg	Ala	Arg	Cys	Pro	Gln	Glu	Arg	Thr	Arg	Cys	Trp	Cys	Ser	Tyr
	130					135					140				
Gln	Arg	Gly	Pro	Phe	Cys	Trp	Thr	Pro	Thr	Val	Asn	Ile	Trp	Gln	
145					150					155					

<210> 4243

<211> 3159

<212> DNA

<213> Homo sapiens

<400> 4243
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240
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420
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<210> 4244
 <211> 849
 <212> PRT
 <213> Homo sapiens

<400> 4244
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 Ala Glu Phe Glu Arg Thr Tyr Val Asp Glu Val Asn Ser Glu Leu Val
 35 40 45
 Asn Ile Tyr Thr Phe Asn His Thr Val Thr Arg Asn Arg Thr Glu Gly
 50 55 60
 Val Arg Val Ser Val Asn Val Leu Asn Lys Gln Lys Gly Ala Pro Leu
 65 70 75 80
 Leu Phe Val Val Arg Gln Lys Glu Ala Val Val Ser Phe Gln Val Pro
 85 90 95
 Leu Ile Leu Arg Gly Met Phe Gln Arg Lys Tyr Leu Tyr Gln Lys Val
 100 105 110
 Glu Arg Thr Leu Cys Gln Pro Pro Thr Lys Asn Glu Ser Glu Ile Gln
 115 120 125
 Phe Phe Tyr Val Asp Val Ser Thr Leu Ser Pro Val Asn Thr Thr Tyr
 130 135 140
 Gln Leu Arg Val Ser Arg Met Asp Asp Phe Val Leu Arg Thr Gly Glu
 145 150 155 160
 Gln Phe Ser Phe Asn Thr Thr Ala Ala Gln Pro Gln Tyr Phe Lys Tyr
 165 170 175
 Glu Phe Pro Glu Gly Val Asp Ser Val Ile Val Lys Val Thr Ser Asn
 180 185 190
 Lys Ala Phe Pro Cys Ser Val Ile Ser Ile Gln Asp Val Leu Cys Pro
 195 200 205
 Val Tyr Asp Leu Asp Asn Asn Val Ala Phe Ile Gly Met Tyr Gln Thr
 210 215 220
 Met Thr Lys Lys Ala Ala Ile Thr Val Gln Arg Lys Asp Phe Pro Ser
 225 230 235 240
 Asn Ser Phe Tyr Val Val Val Val Val Lys Thr Glu Asp Gln Ala Cys
 245 250 255
 Gly Gly Ser Leu Pro Phe Tyr Pro Phe Ala Glu Asp Glu Pro Val Asp
 260 265 270
 Gln Gly His Arg Gln Lys Thr Leu Ser Val Leu Val Ser Gln Ala Val
 275 280 285
 Thr Ser Glu Ala Tyr Val Ser Gly Met Leu Phe Cys Leu Gly Ile Phe
 290 295 300
 Leu Ser Phe Tyr Leu Leu Thr Val Leu Leu Ala Cys Trp Glu Asn Trp
 305 310 315 320
 Arg Gln Lys Lys Lys Thr Leu Leu Val Ala Ile Asp Arg Ala Cys Pro
 325 330 335
 Glu Ser Ala Ser Leu Leu Gly His Pro Arg Val Leu Ala Asp Ser Phe
 340 345 350
 Pro Gly Ser Ser Pro Tyr Glu Gly Tyr Asn Tyr Gly Ser Phe Glu Asn
 355 360 365
 Val Ser Gly Ser Thr Asp Gly Leu Val Asp Ser Ala Gly Thr Gly Asp

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370          375          380
Leu Ser Tyr Gly Tyr Gln Gly His Asp Gln Phe Lys Arg Arg Leu Pro
385          390          395          400
Ser Gly Gln Met Arg Gln Leu Cys Ile Ala Met Gly Arg Ser Phe Glu
          405          410          415
Pro Val Gly Thr Arg Pro Arg Val Asp Ser Met Ser Ser Val Glu Glu
          420          425          430
Asp Asp Tyr Asp Thr Leu Thr Asp Ile Asp Ser Asp Lys Asn Val Ile
          435          440          445
Arg Thr Lys Gln Tyr Leu Tyr Val Ala Asp Leu Ala Arg Lys Asp Lys
          450          455          460
Arg Val Leu Arg Lys Lys Tyr Gln Ile Tyr Phe Trp Asn Ile Ala Thr
465          470          475          480
Ile Ala Val Phe Tyr Ala Leu Pro Val Val Gln Leu Val Ile Thr Tyr
          485          490          495
Gln Thr Val Val Asn Val Thr Gly Asn Gln Asp Ile Cys Tyr Tyr Asn
          500          505          510
Phe Leu Cys Ala His Pro Leu Gly Asn Leu Ser Ala Phe Asn Asn Ile
          515          520          525
Leu Ser Asn Leu Gly Tyr Ile Leu Leu Gly Leu Leu Phe Leu Leu Ile
          530          535          540
Ile Leu Gln Arg Glu Ile Asn His Asn Arg Ala Leu Leu Arg Asn Asp
545          550          555          560
Leu Cys Ala Leu Glu Cys Gly Ile Pro Lys His Phe Gly Leu Phe Tyr
          565          570          575
Ala Met Gly Thr Ala Leu Met Met Glu Gly Leu Leu Ser Ala Cys Tyr
          580          585          590
His Val Cys Pro Asn Tyr Thr Asn Phe Gln Phe Asp Thr Ser Phe Met
          595          600          605
Tyr Met Ile Ala Gly Leu Cys Met Leu Lys Leu Tyr Gln Lys Arg His
          610          615          620
Pro Asp Ile Asn Ala Ser Ala Tyr Ser Ala Tyr Ala Cys Leu Ala Ile
625          630          635          640
Val Ile Phe Phe Ser Val Leu Gly Val Val Phe Gly Lys Gly Asn Thr
          645          650          655
Ala Phe Trp Ile Val Phe Ser Ile Ile His Ile Ile Ala Thr Leu Leu
          660          665          670
Leu Ser Thr Gln Leu Tyr Tyr Met Gly Arg Trp Lys Leu Asp Ser Gly
          675          680          685
Ile Phe Arg Arg Ile Leu His Val Leu Tyr Thr Asp Cys Ile Arg Gln
          690          695          700
Cys Ser Gly Pro Leu Tyr Val Asp Arg Met Val Leu Leu Val Met Gly
705          710          715          720
Asn Val Ile Asn Trp Ser Leu Ala Ala Tyr Gly Leu Ile Met Arg Pro
          725          730          735
Asn Asp Phe Ala Ser Tyr Leu Leu Ala Ile Gly Ile Cys Asn Leu Leu
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Leu Tyr Phe Ala Phe Tyr Ile Ile Met Lys Leu Arg Ser Gly Glu Arg
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Ile Lys Leu Ile Pro Leu Leu Cys Ile Val Cys Thr Ser Val Val Trp
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Gly Phe Ala Leu Phe Phe Phe Phe Gln Gly Leu Ser Thr Trp Gln Lys
785          790          795          800
Thr Pro Ala Glu Ser Arg Glu His Asn Arg Asp Cys Ile Leu Leu Asp

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<210> 4245

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4245

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<213> Homo sapiens

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<210> 4247

<211> 5755

<212> DNA

<213> Homo sapiens

<400> 4247

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<210> 4248

<211> 1297

<212> PRT

<213> Homo sapiens

<400> 4248

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Ala	Pro	Ser	Pro	Leu	Pro	Leu	His	Thr	His	Ala	Arg	Ser	Leu	Ala	Gly
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Ala	Arg	Thr	Pro	Pro	Ala	Pro	Asp	Pro	His	Leu	Gly	Gly	Arg	His	Thr
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Leu	Gly	Ser	Pro	Ser	Arg	Gly	Ser	Arg	Ser	Gly	Met	Glu	Ala	Ala	Arg
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Thr	Glu	Arg	Pro	Ala	Gly	Arg	Pro	Gly	Ala	Pro	Leu	Val	Arg	Thr	Gly
			85						90					95	
Leu	Leu	Leu	Leu	Ser	Thr	Trp	Val	Leu	Ala	Gly	Ala	Glu	Ile	Thr	Trp
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Asp	Ala	Thr	Gly	Gly	Pro	Gly	Arg	Pro	Ala	Ala	Pro	Ala	Ser	Arg	Pro
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Pro	Ala	Leu	Ser	Pro	Leu	Ser	Pro	Arg	Ala	Val	Ala	Ser	Gln	Trp	Pro
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Gln	Val	Glu	Ala	Gly	Gly	Thr	Ser	Pro	Ala	Gly	Glu	Arg	Arg	Gly	Arg
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Gly	Ile	Pro	Ala	Pro	Ala	Lys	Leu	Gly	Gly	Ala	Arg	Arg	Ser	Arg	Arg
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Gln Ala Met Val His Trp Ser Gly His Asn Ser Ser Val Ile Leu Ile		270
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Leu Thr Lys Leu Tyr Asp Phe Asn Leu Gly Ser Val Thr Glu Ser Ser		285
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Leu Trp Arg Ser Thr Asp Tyr Gly Thr Thr Tyr Glu Lys Leu Asn Asp		300
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Lys Val Gly Leu Lys Thr Val Leu Ser Tyr Leu Tyr Val Asn Pro Thr		320
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Ile Leu Ile Ser Ser Asp Glu Gly Ala Thr Tyr Gln Lys Tyr Arg Leu		350
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Thr Phe Tyr Ile Gln Ser Leu Leu Phe His Pro Lys Gln Glu Asp Trp		365
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Val Leu Ala Tyr Ser Leu Asp Gln Lys Leu Tyr Ser Ser Met Asp Phe		380
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Gly Arg Arg Trp Gln Leu Met His Glu Arg Ile Thr Pro Asn Arg Phe		400
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Tyr Trp Ser Val Ala Gly Leu Asp Lys Glu Ala Asp Leu Val His Met		415
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Glu Val Arg Thr Thr Asp Gly Tyr Ala His Tyr Leu Thr Cys Arg Ile		430
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Gln Glu Cys Ala Glu Thr Thr Arg Ser Gly Pro Phe Ala Arg Ser Ile		445
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Asp Ile Ser Ser Leu Val Val Gln Asp Glu Tyr Ile Phe Ile Gln Val		460
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Thr Thr Ser Gly Arg Ala Ser Tyr Tyr Val Ser Tyr Arg Arg Glu Ala		480
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Phe Ala Gln Ile Lys Leu Pro Lys Tyr Ser Leu Pro Lys Asp Met His		495
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Tyr Phe Thr Leu Ala Met Glu Asn Ile Lys Ser Ser Arg Gly Leu Met		540
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Tyr Asn Lys Gly Arg Asp Trp Arg Leu Leu Gln Ala Pro Asp Val Asp		590
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785                790                795                800
Pro Gly Ala Gln Cys Ala Leu Gly Arg Asp His Ser Gly Ser Val Val
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Ser Glu Pro Cys Val Cys Ala Asn Trp Asp Phe Glu Cys Asp Tyr Gly
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Tyr Glu Arg His Gly Glu Ser Gln Cys Val Pro Ala Phe Trp Tyr Asn
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Pro Ala Ser Pro Ser Lys Asp Cys Ser Leu Gly Gln Ser Tyr Leu Asn
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Arg Thr Asn Ile Gln Leu Asp Phe Gly Asp Gly Ile Ala Val Ser Tyr
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His Leu Arg Val Pro Phe Val Ala Ile Arg Asn Lys Glu Val Asn Ile
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<210> 4249

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4249

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300
ctgcaaaagt ttagtagaga catggaagac gtaaagggga cccaagcaa gcctctagag
360
aattataaca tgttggctgg gcttgggtggc tcacgcgtgt catcgagca ctttggggagg
420
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<210> 4250
<211> 164
<212> PRT
<213> Homo sapiens

<400> 4250
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20 25 30
Met Ile Tyr Lys Asn Ala Lys Thr Pro Ser Thr Gln His Gly Lys Ile
35 40 45
Arg Asn Ala Ser Gly Ile Asn Pro Arg Val Pro Gly Pro Gln Glu Gly
50 55 60
Ser Ile Ile Gly Pro Gln Thr Arg Arg Lys Ser Ser Leu Leu Lys Pro
65 70 75 80
Thr Leu Ile Ser Glu Pro Ala Asp Met Gly Thr Gln Gln Phe Leu Gln
85 90 95
Leu Asn Pro Asn Leu Gln Lys Phe Ser Arg Asp Met Glu Asp Val Lys
100 105 110
Gly Thr Pro Ser Lys Pro Leu Glu Asn Tyr Asn Met Leu Ala Gly Leu
115 120 125
Gly Gly Ser Arg Val Ser Ser Gln His Phe Gly Arg Leu Arg Gln Glu
130 135 140
Asp Arg Leu Ser Pro Gly Val Gln Asp Gln Pro Gly Pro His Ser Glu
145 150 155 160
Thr Pro Ile Ser

<210> 4251
<211> 1574
<212> DNA
<213> Homo sapiens

<400> 4251
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120
gggggggggc caggccctaa cccatttat ttcattccac agatgagggc aaccttaaga
180
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240
gacacatctc gtctcccctc tttccgcac tgtgggcaca aagacacttt ttcttcgca
300
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360
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420
cgcccccttc cactcacca cccccacccc aggtgctggg ggtcccttat tttatgcaa
480

taactgagct tgatgggggt gggcaggggg ccagttgagc caatcaccag cctccatata
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 acagatcctg accctgaatc tcaggagctg cagatcgggg gcacctgccc tgacatcacc
 600
 aaacgctacc tgcgcctgac ctgtgcccc gacctgtcca ccgtgcgccc tgtggcagtt
 660
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 780
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<210> 4252

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4252

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 20 25 30
 Pro Asp Ile Thr Lys Arg Tyr Leu Arg Leu Thr Cys Ala Pro Asp Pro
 35 40 45
 Ser Thr Val Arg Pro Val Ala Val Leu Lys Lys Ser Leu Cys Met Val
 50 55 60
 Lys Cys His Trp Lys Glu Lys Gln Asp Tyr Ala Phe Ala Cys Glu Gln

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65          70          75          80
Met Lys Ser Ile Arg Gln Asp Leu Thr Val Gln Gly Ile Arg Thr Glu
          85          90          95
Phe Thr Val Glu Val Tyr Glu Thr His Ala Arg Ile Ala Leu Glu Lys
          100          105          110
Gly Asp His Glu Glu Phe Asn Gln Cys Gln Thr Gln Leu Lys Ser Leu
          115          120          125
Tyr Ala Glu Asn Leu Pro Gly Asn Val Gly Glu Phe Thr Ala Tyr Arg
          130          135          140
Ile Leu Tyr Tyr Ile Phe Thr Lys Asn Ser Gly Asp Ile Thr Thr Glu
145          150          155          160
Leu Ala Tyr Leu Thr Arg Glu Leu Lys Ala Asp Pro Cys Val Ala His
          165          170          175
Ala Leu Ala Leu Arg Thr Ala Trp Ala Leu Gly Asn Tyr His Arg Phe
          180          185          190
Phe Arg Leu Tyr Cys His Ala Pro Cys Met Ser Gly Tyr Leu Val Asp
          195          200          205
Lys Phe Ala Asp Arg Glu Arg Lys Val Ala Leu Lys Ala Met Ile Lys
          210          215          220
Thr Tyr Val Val Pro Ser Ser Leu Leu Pro Leu Leu Phe Pro Ser Phe
225          230          235          240
Arg Leu Ala Pro Pro Leu Arg Pro Ala Pro Gly Arg Arg Pro Pro Pro
          245          250          255
Ala Pro Asn Pro Cys Pro Gly Pro Cys Phe Pro Ile Ile Phe Leu His
          260          265          270
Ser Ala Leu Pro Ser Pro Val Pro Leu Ala Leu Leu Val Gly His Leu
          275          280          285
Cys Val Pro Gly His Ser Ser Pro Ser Pro His Cys Ser Gln Leu Thr
          290          295          300
Ala Ser Gly Ala Ser Ser Pro Pro His Leu Cys Val Ser Ser Ser Cys
305          310          315          320
Ser Leu Leu Pro Gly Pro Pro Ser Ser Leu Leu Ala Leu Gly Phe Leu
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Arg Thr Leu Arg Ser Leu Leu Ser Gln Leu Val Ala Val Leu Pro Pro
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<210> 4253

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 4253

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120
gtttccttgt ggggtggaggg tactttcccg ccccttggtt tcgggcttgc ccacgtggct
180
tgctctggcc atggaatgaa gcagaaacga aagcctgcc a gttctgagcc tatgccggaa
240
gacgccttgg gcggttccgc ggtccctgtg cgcttcaccc ttcaccacaga aggacttctc
300
tggtgcagcc gctgcttctt cagccacggc ccaaaaggat cggagccccc tggccgatcc
360

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gcaggtctgc agggagccac agagcgcagc ggccggccca gcgttcaagc ccaagcacag
 420
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 480
 gcggtagctc accaatccag tgcgtgcacc cgctccttta ttaggctata gagccagtgg
 540
 ctcccacagg gacctgatac aacagtgcgt taaataagga gcatattgag ctctcatgtc
 600
 gtaagccagt ggagaagtcc agggctagtg tgggggctcc ggcgggggct gtggccccc
 660
 tccgcatgga gcctcccat gggtcacagg tctcagtcct cggagccttc ggccctgcga
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 780
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 960
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 1020
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 1200
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 1287

<210> 4254

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4254

Met	Val	Ser	Leu	Trp	Val	Glu	Gly	Thr	Phe	Pro	Pro	Pro	Gly	Phe	Gly
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Leu	Ala	His	Val	Ala	Cys	Ser	Gly	His	Gly	Met	Lys	Gln	Lys	Arg	Lys
			20					25					30		
Pro	Ala	Ser	Ser	Glu	Pro	Met	Pro	Glu	Asp	Ala	Leu	Gly	Gly	Ser	Ala
			35				40					45			
Val	Pro	Val	Arg	Phe	His	Leu	His	Pro	Glu	Gly	Leu	Leu	Trp	Cys	Ser
		50			55					60					
Arg	Cys	Phe	Phe	Ser	His	Gly	Pro	Lys	Gly	Ser	Glu	Pro	Pro	Gly	Arg
65					70				75					80	
Ser	Ala	Gly	Leu	Gln	Gly	Ala	Thr	Glu	Arg	Ser	Gly	Arg	Pro	Ser	Val
			85					90				95			
Gln	Ala	Gln	Ala	Gln	Ala	Cys	Glu	Asn	Leu	Val	Pro	Ala	Thr	Val	Trp
			100					105					110		
Asp	Gly														

<210> 4255

<211> 2205

<212> DNA

<213> Homo sapiens

<400> 4255

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120
aacacccaat ggcgtcctca gaattttattc tgggtccctc atgggacaag cattggatcc
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480
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780
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1020
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1140
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 1920
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 1980
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 2040
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 2100
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<210> 4256

<211> 384

<212> PRT

<213> Homo sapiens

<400> 4256

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Ser	Ser	Leu	Asn	Thr	Tyr	Ile	Val	Arg	Arg	Cys	Ile	Ala	Thr	Pro	Asn
		20						25					30		
Gly	Val	Leu	Arg	Ile	Tyr	Ser	Gly	Ser	Leu	Met	Gly	Gln	Ala	Leu	Asp
		35					40					45			
Pro	Thr	Arg	Lys	Gln	Trp	Tyr	Leu	His	Ala	Val	Ala	Asn	Pro	Gly	Leu
		50				55				60					
Ile	Ser	Leu	Thr	Gly	Pro	Tyr	Leu	Asp	Val	Gly	Gly	Ala	Gly	Tyr	Val
65				70					75					80	
Val	Thr	Ile	Ser	His	Thr	Ile	His	Ser	Ser	Ser	Thr	Gln	Leu	Ser	Ser
			85					90					95		
Gly	His	Thr	Val	Ala	Val	Met	Gly	Ile	Asp	Phe	Thr	Leu	Arg	Tyr	Phe
		100					105					110			
Tyr	Lys	Val	Leu	Met	Asp	Leu	Leu	Pro	Val	Cys	Asn	Gln	Asp	Gly	Gly
		115				120					125				
Asn	Lys	Ile	Arg	Cys	Phe	Ile	Met	Glu	Asp	Arg	Gly	Tyr	Leu	Val	Ala
		130				135					140				
His	Pro	Thr	Leu	Ile	Asp	Pro	Lys	Gly	His	Ala	Pro	Val	Glu	Gln	Gln

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145          150          155          160
His Ile Thr His Lys Glu Pro Leu Val Ala Asn Asp Ile Leu Asn His
          165          170          175
Pro Asn Phe Val Lys Lys Asn Leu Cys Asn Ser Phe Ser Asp Arg Thr
          180          185          190
Val Gln Arg Phe Tyr Lys Phe Asn Thr Ser Leu Ala Gly Asp Leu Thr
          195          200          205
Asn Leu Val His Gly Ser His Cys Ser Lys Tyr Arg Leu Ala Arg Ile
          210          215          220
Pro Gly Thr Asn Ala Phe Val Gly Ile Val Asn Glu Thr Cys Asp Ser
225          230          235          240
Leu Ala Phe Cys Ala Cys Ser Met Val Asp Arg Leu Cys Leu Asn Cys
          245          250          255
His Arg Met Glu Gln Asn Glu Cys Glu Cys Pro Cys Glu Cys Pro Leu
          260          265          270
Glu Val Asn Glu Cys Thr Gly Asn Leu Thr Asn Ala Glu Asn Arg Asn
          275          280          285
Pro Ser Cys Glu Val His Gln Glu Pro Val Thr Tyr Thr Ala Ile Asp
          290          295          300
Pro Gly Leu Gln Asp Ala Leu His Gln Cys Val Asn Ser Arg Cys Ser
305          310          315          320
Gln Arg Leu Glu Ser Gly Asp Cys Phe Gly Val Leu Asp Cys Glu Trp
          325          330          335
Cys Met Val Asp Ser Asp Gly Lys Thr His Leu Asp Lys Pro Tyr Cys
          340          345          350
Ala Pro Gln Lys Glu Cys Phe Gly Gly Ile Val Gly Ala Lys Ser Pro
          355          360          365
Tyr Val Asp Asp Met Gly Ala Ile Gly Asp Glu Val Ile Thr Leu Lys
          370          375          380

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<210> 4257

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 4257

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120
tgagtgcctt gaggagtgtg acagagcctg ggatggatct ttgggagttc tgcagcgaaa
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360
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420
acactgaggg gcttcaagaa gttcgtggtg accttcatga tctttatggc aagagatttt
480
gccacaccat cactccacac ctctgaccaa agccccggga agcacatggt caccatggat
540

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 caccatacgt ttttcttcaa tgacgaccac acaaccatga cattcatcgg ctcccatctg
 660
 cagcccaaca tcaacggcag tgtcgatgcc atcagtcact tgactgggaa ggtcatcaag
 720
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<210> 4258

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4258

Met	Ile	Phe	Met	Ala	Arg	Asp	Phe	Ala	Thr	Pro	Ser	Leu	His	Thr	Ser
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Asp	Gln	Ser	Pro	Gly	Lys	His	Met	Val	Thr	Met	Asp	Gly	Val	Arg	Glu
			20						25				30		
Glu	Asp	Leu	Ala	Pro	Phe	Ser	Leu	Arg	Lys	Arg	Trp	Glu	Ser	Glu	Pro
			35						40				45		
His	Pro	Tyr	Val	Phe	Phe	Asn	Asp	Asp	His	Thr	Thr	Met	Thr	Phe	Ile
			50			55					60				
Gly	Phe	His	Leu	Gln	Pro	Asn	Ile	Asn	Gly	Ser	Val	Asp	Ala	Ile	Ser
65					70					75				80	
His	Leu	Thr	Gly	Lys	Val	Ile	Lys	Arg	Asp	Val	Met	Thr	Arg	Asp	Leu
				85					90					95	
Tyr	Gln	Gly	Leu	Leu	Leu	Gln	Arg	Val	Pro	Phe	Asn	Val	Asp	Phe	Asp

```

      100      105      110
Lys Leu Pro Arg His Lys Lys Leu Glu Arg Leu Cys Leu Thr Leu Gly
      115      120      125
Ile Pro Gln Ala Thr Asp Pro Asp Lys Thr Tyr Glu Leu Thr Thr Asp
      130      135      140
Asn Met Leu Lys Ile Leu Ala Ile Glu Met Arg Phe Arg Cys Gly Ile
145      150      155      160
Pro Val Ile Ile Met Gly Glu Thr Gly Cys Gly Lys Thr Arg Leu Ile
      165      170      175
Lys Phe Leu Ser Asp Leu Arg Arg Gly Gly Thr Asn Ala Asp Thr Ile
      180      185      190
Lys Leu Val Lys Val His Gly Gly Thr Thr Ala Asp Met Ile Tyr Ser
      195      200      205
Arg Val Arg Glu Ala Glu Asn Val Ala Phe Ala Asn Lys Asp Gln His
      210      215      220
Gln Leu Asp Thr Ile Leu Phe Phe Asp Glu Ala Asn Thr Thr Glu Ala
225      230      235      240
Ile Ser Cys Ile Lys Glu Val Leu Cys Asp His Met Val Asp Gly Gln
      245      250      255
Pro Leu Ala Glu Asp Ser Gly Leu His Ile Ile Ala Ala Cys Asn Pro
      260      265      270
Tyr Pro Glu Asn Ser Glu Glu Met Ile Cys Arg Leu Glu Ser Ala Gly
      275      280      285
Leu Gly Tyr Arg Val Ser Met Glu Glu Thr Ala Asp Arg Leu Gly Ser
      290      295      300
Ile Pro Leu Gly Tyr Thr Cys Thr Gln Arg
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<210> 4259

<211> 377

<212> DNA

<213> Homo sapiens

<400> 4259

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240
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gttgacgagg gagcagc
377

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<210> 4260

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4260

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Gly Glu Pro Ala Pro Glu Glu Pro Pro Pro Ala Pro Arg Pro Ser Arg
          20           25           30
Glu Gln Lys Cys Val Lys Cys Lys Glu Ala Gln Pro Val Val Val Ile
          35           40           45
Arg Ala Gly Asp Ala Phe Cys Arg Asp Cys Phe Lys Ala Phe Tyr Val
          50           55           60
His Lys Phe Arg Ala Met Leu Gly Lys Asn Arg Leu Ile Phe Pro Gly
65           70           75           80
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<212> DNA

<213> Homo sapiens

<400> 4261

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<210> 4262

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<212> PRT

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<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

<400> 4265

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Ser	Pro	Ala	Tyr	Arg	Arg	Cys	Ser	Met	Asn	Arg	Ser	Arg	Ala	Ile	Val
			20					25					30		
Gln	Arg	Gly	Arg	Val	Leu	Pro	Pro	Pro	Ala	Pro	Leu	Asp	Thr	Thr	Asn
		35					40					45			
Leu	Ala	Gly	Arg	Arg	Thr	Leu	Gln	Gly	Arg	Ala	Lys	Met	Ala	Ser	Val
	50					55					60				
Pro	Val	Tyr	Cys	Leu	Cys	Arg	Leu	Pro	Tyr	Asp	Val	Thr	Arg	Phe	Met
65				70					75						80
Ile	Glu	Cys	Asp	Met	Cys	Gln	Asp	Trp	Phe	His	Gly	Ser	Cys	Val	Gly
			85					90						95	
Val	Glu	Glu	Glu	Lys	Ala	Ala	Asp	Ile	Asp	Leu	Tyr	His	Cys	Pro	Asn
			100					105					110		
Cys	Glu	Val	Leu	His	Gly	Pro	Ser	Ile	Met	Lys	Lys	Arg	Arg	Gly	Ser
	115					120						125			
Ser	Lys	Gly	His	Asp	Thr	His	Lys	Gly	Lys	Pro	Val	Lys	Thr	Gly	Ser
	130					135					140				
Pro	Thr	Phe	Val	Arg	Glu	Leu	Arg	Ser	Arg	Thr	Phe	Asp	Ser	Ser	Asp
145					150					155					160
Glu	Val	Ile	Leu	Lys	Pro	Thr	Gly	Asn	Gln	Leu	Thr	Val	Glu	Phe	Leu
				165					170					175	
Glu	Glu	Asn	Ser	Phe	Ser	Val	Pro	Ile	Leu	Val	Leu	Lys	Lys	Asp	Gly
		180						185					190		
Leu	Gly	Met	Thr	Leu	Pro	Ser	Pro	Ser	Phe	Thr	Val	Arg	Asp	Val	Glu
	195					200						205			
His	Tyr	Val	Gly	Ser	Asp	Lys	Glu	Ile	Asp	Val	Ile	Asp	Val	Thr	Arg
	210					215					220				
Gln	Ala	Asp	Cys	Lys	Met	Lys	Leu	Gly	Asp	Phe	Val	Lys	Tyr	Tyr	Tyr
225					230					235				240	
Ser	Gly	Lys	Arg	Glu	Lys	Val	Leu	Asn	Val	Ile	Ser	Leu	Glu	Phe	Ser

3475

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        675                680                685
Lys Ala Thr Leu Ile Ile Arg Pro Lys Phe Pro Arg Lys Leu Pro Arg
  690                695                700
Ala Lys Pro Cys Ser Asp Pro Asn Arg Val Arg Glu Pro Gly Glu Val
  705                710                715                720
Glu Phe Asp Ile Glu Glu Asp Tyr Thr Thr Asp Glu Asp Met Val Glu
        725                730                735
Gly Val Glu Gly Lys Leu Gly Asn Gly Ser Gly Ala Gly Gly Ile Leu
        740                745                750
Asp Leu Leu Lys Ala Ser Arg Gln Val Gly Gly Pro Asp Tyr Ala Ala
        755                760                765
Leu Thr Glu Ala Pro Ala Ser Pro Ser Thr Gln Glu Ala Ile Gln Gly
        770                775                780
Met Leu Cys Met Ala Asn Leu Gln Ser Ser Ser Ser Ser Pro Ala Thr
  785                790                795                800
Ser Ser Leu Gln Ala Trp Trp Thr Gly Gly Gln Asp Arg Ser Ser Gly
        805                810                815
Ser Ser Ser Ser Gly Leu Gly Thr Val Ser Asn Ser Pro Ala Ser Gln
        820                825                830
Arg Thr Pro Gly Lys Arg Pro Ile Lys Arg Pro Ala Tyr Trp Arg Thr
        835                840                845
Glu Ser Glu Glu Glu Glu Glu Asn Ala Ser Leu Asp Glu Gln Asp Ser
  850                855                860
Leu Gly Ala Cys Phe Lys Asp Ala Glu Tyr Ile Tyr Pro Ser Leu Glu
  865                870                875                880
Ser Asp Asp Asp Asp Pro Ala Leu Lys Ser Arg Pro Lys Lys Lys Lys
        885                890                895
Asn Ser Asp Asp Ala Pro Trp Ser Pro Lys Ala Arg Val Thr Pro Thr
        900                905                910
Leu Pro Lys Gln Asp Arg Pro Val Arg Glu Gly Thr Arg Val Ala Ser
  915                920                925
Ile Glu Thr Gly Leu Ala Ala Ala Ala Lys Leu Ala Gln Gln Glu
  930                935                940
Leu Gln Lys Ala Gln Lys Lys Lys Tyr Ile Lys Lys Lys Pro Leu Leu
  945                950                955                960
Lys Glu Val Glu Gln Pro Arg Pro Gln Asp Ser Asn Leu Ser Leu Thr
        965                970                975
Val Pro Ala Pro Thr Val Ala Ala Thr Pro Gln Leu Val Thr Ser Ser
        980                985                990
Ser Pro Leu Pro Pro Pro Glu Pro Lys Gln Glu Ala Leu Ser Gly Ser
        995                1000                1005
Leu Ala Asp His Glu Tyr Thr Ala Arg Pro Asn Ala Phe Gly Met Ala
  1010                1015                1020
Gln Ala Asn Arg Ser Thr Thr Pro Met Ala Pro Gly Val Phe Leu Thr
  1025                1030                1035                1040
Gln Arg Arg Pro Ser Val Gly Ser Gln Ser Asn Gln Ala Gly Gln Gly
        1045                1050                1055
Lys Arg Pro Lys Lys Gly Leu Ala Thr Ala Lys Gln Arg Leu Gly Arg
        1060                1065                1070
Ile Leu Lys Ile His Arg Asn Gly Lys Leu Leu Leu
        1075                1080

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<210> 4271

<211> 588

<212> DNA

<213> Homo sapiens

<400> 4271

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60
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120
ttgctgtcct caagaaattg caaaaccaga aatcttggtta tgaaactact tttaaataatg
180
tctgaaaatc caactgcagc cagagacatg atcaatatga aggcattggc agcattaaaa
240
ctcatcttta accacaaaga ggcaaaagcc aatcttggtta gtggtgtggc catattttatt
300
aacataaagg agcatatcag aaaaggctca attgtagtta ataaatatgg ccacaccact
360
aacaagattg gcttttgcct ctttctgggt aaagatgagt tttaatgctg ccaatgcctt
420
catattgatc atgtctctgg ctgcagttgg attttcagac atatttaaaa gtagtttcaa
480
aacaagattt ctggttttgc aatttcctga ggacagcaaa tggaaaagct ctgaaaagta
540
attggcaaca atgtagtgat ggacaaaatc agtagtcagt tgtccgtc
588

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<210> 4272

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4272

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Thr Met Ser Phe Pro Leu Asn Ser Pro Gly Gln Gln Ser Gly Leu Lys
1           5           10           15
Ile Leu Arg Gln Leu Thr Thr Asp Phe Val His His Tyr Ile Val Ala
20           25           30
Asn Asn Phe Ser Glu Leu Phe His Leu Leu Ser Ser Arg Asn Cys Lys
35           40           45
Thr Arg Asn Leu Val Met Lys Leu Leu Leu Asn Met Ser Glu Asn Pro
50           55           60
Thr Ala Ala Arg Asp Met Ile Asn Met Lys Ala Leu Ala Ala Leu Lys
65           70           75           80
Leu Ile Phe Asn His Lys Glu Ala Lys Ala Asn Leu Val Ser Gly Val
85           90           95
Ala Ile Phe Ile Asn Ile Lys Glu His Ile Arg Lys Gly Ser Ile Val
100          105          110
Val Asn Lys Tyr Gly His Thr Thr Asn Lys Ile Gly Phe Cys Leu Phe
115          120          125
Leu Val Lys Asp Glu Phe
130

```

<210> 4273

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 4273
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120
gagtaggtgc atgagtggat aaatgggtgg gtgggtaggt gaatagatgt atagatttat
180
aataggggga aggggtggatt ggtagatggg tagatggagg gatacattgc tgtgtggata
240
ggtaggtgaa tggatgaagg agggagggat gggcaggtag atggatagat tagtggatgg
300
atgggtggat gggctgacaa atggcttgtt cccagactgt ttgtccttgg gtggagtcac
360
gcaggtatct attgcagctg ggcctgaact gatattctgaa gagagaagtg gagacagcga
420
ccagacagat gaggatggag aacctggctc agaggcccag gccagggccc agcccttttg
480
cagcaaaaaa aagcgctcc tctcgtcca cgacttcgac ttcgaggag actcagatga
540
ctccactcag cctcaaggtc actcctgca cctgtcctca gtccctgagg ccagggacag
600
cccacagtc ctcacagatg agtcctgctc agagaaggca gccctcaca aggctgaggg
660
cctggaggag gctgatactg gggcctctgg gtgccactcc catccggaag agcagccgac
720
cagcatctca ccttcagac acggcgccct ggctgagctc tgcccgctg gaggtccca
780
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840
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900
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1020
gaggagctga ccagcaacgt cagtgaccag gagaccttcg tccgaggagg aggaagccaa
1080
ggacgaaaat gcagagccca acagggacaa atcagttggg cctctcccc aggcggaccc
1140
ggacgggtggc acggctgccc atcaaacc aaagacaggaa aaaagcccca ggaccctggg
1200
gaccccgctc agtacaacag gaccacagat gaggagctgt cagagctgga ggacagagt
1260
gcagtgacgg cctcagaagt ccagcaggca gagagcgagg ttccagacat tgaatccagg
1320
attgcagccc tgagggccgc agggctcacg gtgaagccct cgggaaagcc ccgagggaag
1380
tcaaaccctc cgatatttct ccctcgagtg gctgggaaac ttggcaagag accagaggac
1440
ccaaatgcag acccttcaag tgaggccaag gcaatggctg tgcctatctt ctgagaagaa
1500
agttcagtaa ttccctgaaa agtcaaggta aagatgatga ttcttttgat cggaaatcag
1560

tgtaccgagg ctgctgaca cagagaaacc ccaacgcgag gaaaggaatg gccagccaca
 1620
 ccttcgcgaa acctgtggtg gccaccagt cctaacggga caggacagag agacagagca
 1680
 gccctgcact gttttccctc caccacagcc atcctgtccc tcattggctc tgtgctttcc
 1740
 actatacaca gtcaccgtcc caatgagaaa caagaaggag caccctccac atggactccc
 1800
 acctgcaagt ggacagcgac attcagtcct gcactgctca cctgggttta ctgatgactc
 1860
 ctggctgccc caccatcctc tctgatctgt gagaaacagc taagctgctg tgacttccct
 1920
 ttaggacaat gttgtgtaaa tctttgaagg acacaccgaa gacctttata ctgtgatctt
 1980
 ttaccccttt cactcttggc tttcttatgt tgctttcatg aatggaatgg aaaaaagatg
 2040
 actcagttaa ggcacaaaaa aaaaaaaaaa aaaagtcgag c
 2081

<210> 4274

<211> 235

<212> PRT

<213> Homo sapiens

<400> 4274

Met	Ala	Leu	Gly	Lys	Leu	Leu	Leu	His	Ser	Gly	Arg	Met	Ser	Ser	Gly
1				5					10				15		
Met	Ser	Ser	Cys	Pro	Cys	Ser	Thr	Trp	Pro	Met	Trp	Asp	Thr	Ser	Asp
			20					25				30			
Glu	Glu	Ser	Ile	Arg	Ala	His	Val	Met	Ala	Ser	His	His	Ser	Lys	Arg
			35				40					45			
Arg	Gly	Arg	Ala	Ser	Ser	Glu	Ser	Gln	Gly	Leu	Gly	Ala	Gly	Val	Arg
			50				55				60				
Thr	Glu	Xaa	Asp	Val	Glu	Glu	Glu	Ala	Leu	Arg	Arg	Lys	Leu	Glu	Glu
65					70				75					80	
Leu	Thr	Ser	Asn	Val	Ser	Asp	Gln	Glu	Thr	Phe	Val	Arg	Gly	Gly	Gly
			85					90					95		
Ser	Gln	Gly	Arg	Lys	Cys	Arg	Ala	Gln	Gln	Gly	Gln	Ile	Ser	Trp	Ala
			100					105				110			
Ser	Pro	Pro	Gly	Gly	Pro	Gly	Arg	Trp	His	Gly	Cys	Pro	Ser	Asn	Gln
			115				120					125			
Gln	Thr	Gly	Lys	Lys	Pro	Gln	Asp	Pro	Gly	Asp	Pro	Val	Gln	Tyr	Asn
			130			135				140					
Arg	Thr	Thr	Asp	Glu	Glu	Leu	Ser	Glu	Leu	Glu	Asp	Arg	Val	Ala	Val
145					150				155					160	
Thr	Ala	Ser	Glu	Val	Gln	Gln	Ala	Glu	Ser	Glu	Val	Ser	Asp	Ile	Glu
			165					170					175		
Ser	Arg	Ile	Ala	Ala	Leu	Arg	Ala	Ala	Gly	Leu	Thr	Val	Lys	Pro	Ser
			180					185				190			
Gly	Lys	Pro	Arg	Arg	Lys	Ser	Asn	Leu	Pro	Ile	Phe	Leu	Pro	Arg	Val
			195				200					205			
Ala	Gly	Lys	Leu	Gly	Lys	Arg	Pro	Glu	Asp	Pro	Asn	Ala	Asp	Pro	Ser
			210			215					220				
Ser	Glu	Ala	Lys	Ala	Met	Ala	Val	Pro	Ile	Phe					

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<210> 4276
<211> 264
<212> PRT
<213> Homo sapiens
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<400> 4276
Met Gln Val Ala Leu Gly Ala His Leu Arg Asp Ala Arg Arg Gly Gln
 1          5          10          15
Arg Leu Arg Ser Gly Ala His Val Val Val Thr Gly Pro Pro Asn Ala
      20          25          30
Gly Lys Ser Ser Leu Val Asn Leu Leu Ser Arg Lys Pro Val Ser Ile
      35          40          45
Val Ser Pro Glu Pro Gly Thr Thr Arg Asp Val Leu Glu Thr Pro Val
      50          55          60
Asp Leu Ala Gly Phe Pro Val Leu Leu Ser Asp Thr Ala Gly Leu Arg

```

```

65          70          75          80
Glu Gly Val Gly Pro Val Glu Gln Glu Gly Val Arg Arg Ala Arg Glu
      85          90          95
Arg Leu Glu Gln Ala Asp Leu Ile Leu Ala Met Leu Asp Ala Ser Asp
      100          105          110
Leu Ala Ser Pro Ser Ser Cys Asn Phe Leu Ala Thr Val Val Ala Ser
      115          120          125
Val Gly Ala Gln Ser Pro Ser Asp Ser Ser Gln Arg Leu Leu Leu Val
      130          135          140
Leu Asn Lys Ser Asp Leu Leu Ser Pro Glu Gly Pro Gly Pro Gly Pro
145          150          155          160
Asp Leu Pro Pro His Leu Leu Leu Ser Cys Leu Thr Gly Glu Gly Leu
      165          170          175
Asp Gly Leu Leu Glu Ala Leu Arg Lys Glu Leu Ala Ala Val Cys Gly
      180          185          190
Asp Pro Ser Thr Asp Pro Pro Leu Thr Arg Ala Arg His Gln His
      195          200          205
His Leu Gln Gly Cys Leu Asp Ala Leu Gly His Tyr Lys Gln Ser Lys
      210          215          220
Asp Leu Ala Leu Ala Ala Glu Ala Leu Arg Val Ala Arg Gly His Leu
225          230          235          240
Thr Arg Leu Thr Gly Gly Gly Gly Thr Glu Glu Ile Leu Asp Ile Ile
      245          250          255
Phe Gln Asp Phe Cys Val Gly Lys
      260

```

<210> 4277

<211> 1070

<212> DNA

<213> Homo sapiens

<400> 4277

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ccgcctgcg ccgccccctt ccgcgggtcc ggagttggcg gggccctgcg ccggaggagg
120
aggaccaggc ccgcgggctc agctctcgcc gccagcgggc cgcagcattt ttgaaacgtt
180
ggggttggtg gagggttggt atttccctg gaattgagt agaaattcag aagactgaag
240
cccaggctta ctgtctacct ttcacggagg cctagccgtg agaggacaga agaaggcacg
300
tgccgaatca tgacagcgga caaagacaaa gacaaagaca aagagaagga ccgggaccga
360
gaccgggacc gagagagaga gaaaagagac aaagcaagag agagtgagaa ttcaaggcca
420
cgccggagct gtaccttgga aggaggagcc aaaaattatg ctgagagtga tcacagtga
480
gacgaggaca atgacaacaa tagtgccacc gcagaggagt ccacgaagaa gaataagaag
540
aaaccaccga aaaaaaagtc tcgttatgaa aggacagata ccggtgagat aacatcctac
600
atcactgaag atgatgtggt ctacagacca ggagactgtg tgtatatcga ggtcggagg
660

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ccaaacacac cgtatttcat ctgtagcatt caagacttca aactgggtcca caactcccag
 720
 gcctgttgca gatctccaac tcttgctttg tgtgaccccc cagcatgctc tctgccggtg
 780
 gcatcacagc caccacagca tctttctgaa gccgggagag ggcctgtagg gagtaagagg
 840
 gaccatctcc tcatgaacgt caaatgggtac taccgtcaat ctgaggttcc agattctgtg
 900
 tatcagcatt tggttcagga tcgacataat gaaaatgact ctggaagaga acttgtcatt
 960
 acagacccag ttatcaagaa ccgagagctc ttcatttctg attacgttga cacttaccat
 1020
 gctgctgccc ttagagggaa gtgtaacatt ctccattttt ctgacatatt
 1070

<210> 4278

<211> 253

<212> PRT

<213> Homo sapiens

<400> 4278

Met	Thr	Ala	Asp	Lys	Asp	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Asp	Arg	Asp
1				5				10						15	
Arg	Asp	Arg	Asp	Arg	Glu	Arg	Glu	Lys	Arg	Asp	Lys	Ala	Arg	Glu	Ser
			20					25						30	
Glu	Asn	Ser	Arg	Pro	Arg	Arg	Ser	Cys	Thr	Leu	Glu	Gly	Gly	Ala	Lys
			35					40						45	
Asn	Tyr	Ala	Glu	Ser	Asp	His	Ser	Glu	Asp	Glu	Asp	Asn	Asp	Asn	Asn
			50					55				60			
Ser	Ala	Thr	Ala	Glu	Glu	Ser	Thr	Lys	Lys	Asn	Lys	Lys	Lys	Pro	Pro
														80	
Lys	Lys	Lys	Ser	Arg	Tyr	Glu	Arg	Thr	Asp	Thr	Gly	Glu	Ile	Thr	Ser
														95	
Tyr	Ile	Thr	Glu	Asp	Asp	Val	Val	Tyr	Arg	Pro	Gly	Asp	Cys	Val	Tyr
			100					105						110	
Ile	Glu	Ser	Arg	Arg	Pro	Asn	Thr	Pro	Tyr	Phe	Ile	Cys	Ser	Ile	Gln
			115					120						125	
Asp	Phe	Lys	Leu	Val	His	Asn	Ser	Gln	Ala	Cys	Cys	Arg	Ser	Pro	Thr
			130					135						140	
Pro	Ala	Leu	Cys	Asp	Pro	Pro	Ala	Cys	Ser	Leu	Pro	Val	Ala	Ser	Gln
														160	
Pro	Pro	Gln	His	Leu	Ser	Glu	Ala	Gly	Arg	Gly	Pro	Val	Gly	Ser	Lys
														175	
Arg	Asp	His	Leu	Leu	Met	Asn	Val	Lys	Trp	Tyr	Tyr	Arg	Gln	Ser	Glu
														190	
Val	Pro	Asp	Ser	Val	Tyr	Gln	His	Leu	Val	Gln	Asp	Arg	His	Asn	Glu
														205	
Asn	Asp	Ser	Gly	Arg	Glu	Leu	Val	Ile	Thr	Asp	Pro	Val	Ile	Lys	Asn
														220	
Arg	Glu	Leu	Phe	Ile	Ser	Asp	Tyr	Val	Asp	Thr	Tyr	His	Ala	Ala	Ala
														240	
Leu	Arg	Gly	Lys	Cys	Asn	Ile	Leu	His	Phe	Ser	Asp	Ile			
														250	

<210> 4279

<211> 1963

<212> DNA

<213> Homo sapiens

<400> 4279

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120
gcaatggccc tgagagacac cgaggacaag ctacgtcggg gcccgaagag gaggaaggac
180
atccttgag agttgaccaa gagccagaag gttttctcag aaaagctgga ccacctgagc
240
cgccgtcttg cctgggtcca tgccactgtc tactcccagg agaagatgct ggacatctac
300
tggctgctgc gcgtctgcct ggggaccatt gagcacgggt atcgacaggt gtctctcttt
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540
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600ccgaggagca gcgtatcgcc atggtgagga acctcctggc gccctatgag 660
cagcggccct gggcccagac caactggatc ctgggtgcggc tctggagggg ctgtggcttc
720
gggtaccgct atacacggct gccacatctg ctgaaaacca aacttgagga cgccaatttg
780
cccagcctcc agaagccctg cccttcacc ctgctgcagc agcacatggc ggacctcta
840
cagcagggtc ctgatgtggc acccagcttc ctcaacagcg tcctcaatca gctcaactgg
900
gccttctctg aattcattgg catgatccaa gagatccagc aggctgctga gcgcctggag
960
cggaactttg tggacagccg gcagctcaag gtatgtgcca cctgctttga cctctcggtc
1020
agcctgctgc gtgtcttgga gatgactatc aactgggtgc ctgagatatt ccttgactgg
1080
accgggcta cctctgagat gctgctgcgg cgtcttcac agctgctaaa ccagggtgctg
1140
aaccgggtga cagctgagag gaacctgttt gatcgtgtgg tcacctacg gctgcctggc
1200
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1260
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1320
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1380
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1440
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1500

caggcagcag ctgcctccct gccaccagt gaggaggacc tctgcccacat ctgctatgcc
 1560
 cacccecatct ctgctgtgtt ccagccctgt ggccacaagt cctgcaaagc ctgtatcaac
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 1680
 gactgggaga agggagccaa tacgagtact acctcctcag ctgcctagcc ctcacagcct
 1740
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 1800
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 1860
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 1920
 ccacagttag cattaaatta ttattccata caaaaaaaaaaaa aaa
 1963

<210> 4280

<211> 575

<212> PRT

<213> Homo sapiens

<400> 4280

Arg	Pro	Leu	Thr	Glu	Asn	Ser	Leu	Leu	Glu	Val	Leu	Asp	Gly	Thr	Val
1				5					10					15	
Met	Met	Tyr	Ser	Leu	Ser	Val	His	Gln	Gln	Leu	Gly	Lys	Met	Val	Gly
			20					25				30			
Val	Ser	Asp	Asp	Val	Asn	Glu	Tyr	Ala	Met	Ala	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Asp	Lys	Leu	Arg	Arg	Cys	Pro	Lys	Arg	Arg	Lys	Asp	Ile	Leu	Ala	Glu
	50					55				60					
Leu	Thr	Lys	Ser	Gln	Lys	Val	Phe	Ser	Glu	Lys	Leu	Asp	His	Leu	Ser
65				70					75					80	
Arg	Arg	Leu	Ala	Trp	Val	His	Ala	Thr	Val	Tyr	Ser	Gln	Glu	Lys	Met
				85				90						95	
Leu	Asp	Ile	Tyr	Trp	Leu	Leu	Arg	Val	Cys	Leu	Arg	Thr	Ile	Glu	His
		100					105					110			
Gly	Asp	Arg	Thr	Gly	Ser	Leu	Phe	Ala	Phe	Met	Pro	Glu	Phe	Tyr	Leu
		115				120				125					
Ser	Val	Ala	Ile	Asn	Ser	Tyr	Ser	Ala	Leu	Lys	Asn	Tyr	Phe	Gly	Pro
	130					135				140					
Val	His	Ser	Met	Glu	Glu	Leu	Pro	Gly	Tyr	Glu	Glu	Thr	Leu	Thr	Arg
145				150					155					160	
Leu	Ala	Ala	Ile	Leu	Ala	Lys	His	Phe	Ala	Asp	Ala	Arg	Ile	Val	Gly
			165					170					175		
Thr	Asp	Ile	Arg	Asp	Ser	Leu	Met	Gln	Ala	Leu	Ala	Ser	Tyr	Val	Cys
		180					185					190			
Tyr	Pro	His	Ser	Leu	Arg	Ala	Val	Glu	Arg	Ile	Pro	Glu	Glu	Gln	Arg
	195					200				205					
Ile	Ala	Met	Val	Arg	Asn	Leu	Leu	Ala	Pro	Tyr	Glu	Gln	Arg	Pro	Trp
	210				215					220					
Ala	Gln	Thr	Asn	Trp	Ile	Leu	Val	Arg	Leu	Trp	Arg	Gly	Cys	Gly	Phe
225			230					235					240		
Gly	Tyr	Arg	Tyr	Thr	Arg	Leu	Pro	His	Leu	Leu	Lys	Thr	Lys	Leu	Glu


```

                245                250                255
Asp Ala Asn Leu Pro Ser Leu Gln Lys Pro Cys Pro Ser Thr Leu Leu
                260                265                270
Gln Gln His Met Ala Asp Leu Leu Gln Gln Gly Pro Asp Val Ala Pro
                275                280                285
Ser Phe Leu Asn Ser Val Leu Asn Gln Leu Asn Trp Ala Phe Ser Glu
                290                295                300
Phe Ile Gly Met Ile Gln Glu Ile Gln Gln Ala Ala Glu Arg Leu Glu
305                310                315                320
Arg Asn Phe Val Asp Ser Arg Gln Leu Lys Val Cys Ala Thr Cys Phe
                325                330                335
Asp Leu Ser Val Ser Leu Leu Arg Val Leu Glu Met Thr Ile Thr Leu
                340                345                350
Val Pro Glu Ile Phe Leu Asp Trp Thr Arg Pro Thr Ser Glu Met Leu
                355                360                365
Leu Arg Arg Leu Ala Gln Leu Leu Asn Gln Val Leu Asn Arg Val Thr
370                375                380
Ala Glu Arg Asn Leu Phe Asp Arg Val Val Thr Leu Arg Leu Pro Gly
385                390                395                400
Leu Glu Ser Val Asp His Tyr Pro Ile Leu Val Ala Val Thr Gly Ile
                405                410                415
Leu Val Gln Leu Leu Val Arg Gly Pro Ala Ser Glu Arg Glu Gln Ala
                420                425                430
Thr Ser Val Leu Leu Ala Asp Pro Cys Phe Gln Leu Arg Ser Ile Cys
                435                440                445
Tyr Leu Leu Gly Gln Pro Glu Pro Pro Ala Pro Gly Thr Ala Leu Pro
450                455                460
Ala Pro Asp Arg Lys Arg Phe Ser Leu Gln Ser Tyr Ala Asp Tyr Ile
465                470                475                480
Ser Ala Asp Glu Leu Ala Gln Val Glu Gln Met Leu Ala His Leu Thr
                485                490                495
Ser Ala Ser Ala Gln Ala Ala Ala Ala Ser Leu Pro Thr Ser Glu Glu
500                505                510
Asp Leu Cys Pro Ile Cys Tyr Ala His Pro Ile Ser Ala Val Phe Gln
515                520                525
Pro Cys Gly His Lys Ser Cys Lys Ala Cys Ile Asn Gln His Leu Met
530                535                540
Asn Asn Lys Asp Cys Phe Phe Cys Lys Thr Thr Ile Val Ser Val Glu
545                550                555                560
Asp Trp Glu Lys Gly Ala Asn Thr Ser Thr Thr Ser Ser Ala Ala
565                570                575

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<210> 4281

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4281

acgcgtgaag ggacagagct ggggccttgt caggagcccc acagttggcc aatgggccag
60

atgccccata gtctcagccc acctctcttc tgccatgagt cccctgattc tgtcctttga
120

gctgactctg agaggcagtg ggcttccgc cagcacctcc ccctatcaca tttgtagggc
180

tggtttatga ggccggaagt aagcaagcac ccctcatat caacctggca cttcacaccc
 240
 cccatgggta tcagtggggg tgctggctgg ctggcaggca gccagagaca tttagcagg
 300
 tcaggcatgg atgcaggtgg aaatgagaga ggatcagtga gcgcattcat gtcttttgag
 360
 tggctctacag atgagtggtc tccagtctca aatgaggaga acaaataagg aagtaggagc
 420
 tcagggttct tgtgtgtctc ataggcagct gcctatccct gggtgataca gctccctggc
 480
 acaccattc ccaagggcac aggatcc
 507

<210> 4282

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4282

Met	Asn	Ala	Leu	Thr	Asp	Pro	Leu	Ser	Phe	Pro	Pro	Ala	Ser	Met	Pro
1				5					10					15	
Asp	Leu	Leu	Lys	Cys	Leu	Trp	Leu	Pro	Ala	Ser	Gln	Pro	Ala	Pro	Pro
			20					25					30		
Leu	Ile	Thr	Met	Gly	Gly	Val	Lys	Cys	Gln	Val	Asp	Met	Arg	Gly	Cys
		35					40					45			
Leu	Leu	Thr	Ser	Gly	Leu	Ile	Asn	Gln	Pro	Tyr	Lys	Cys	Asp	Arg	Gly
		50				55					60				
Arg	Cys	Trp	Arg	Glu	Ala	His	Cys	Leu	Ser	Glu	Ser	Ala	Gln	Arg	Thr
65					70					75				80	
Glu	Ser	Gly	Asp	Ser	Trp	Gln	Lys	Arg	Gly	Gly	Leu	Arg	Leu	Trp	Gly
			85						90					95	
Ile	Trp	Pro	Ile	Gly	Gln	Leu	Trp	Gly	Ser						
			100					105							

<210> 4283

<211> 315

<212> DNA

<213> Homo sapiens

<400> 4283

gaattctcaa ccagaacagc ccagcaggaa aggagccggc atgggggtgcc cctctgcagc
 60
 cgaccgtttt cctagaaggc ctaaccgctc aaacgggcag gggagggggg cgggcggccc
 120
 gggagaaaacc gaggccccgc cgggtcccca ccgtgtggcg ccgaccgaaa taactccagt
 180
 ccagctgcaa aaacctccc gaaaacccaa gcttgtccgg cacaacttcg gtctctccag
 240
 cctcattcct gcccgactc cgccaaactg ctgcacctgc ccagcgagc ggatgcagcg
 300
 ctcccgccc nacgg
 315

<210> 4284

<211> 91
 <212> PRT
 <213> Homo sapiens

<400> 4284
 Met Gly Cys Pro Ser Ala Ala Asp Arg Phe Pro Arg Arg Pro Asn Arg
 1 5 10 15
 Ser Asn Gly Gln Gly Arg Gly Ala Gly Gly Pro Gly Glu Thr Glu Ser
 20 25 30
 Pro Pro Gly Pro His Arg Val Ala Pro Thr Glu Ile Thr Pro Val Gln
 35 40 45
 Leu Gln Lys Pro Ser Arg Lys Pro Lys Leu Val Arg His Asn Phe Gly
 50 55 60
 Leu Ser Ser Leu Ile Pro Ala Arg Thr Pro Pro Asn Cys Ser Pro Cys
 65 70 75 80
 Pro Ala Gln Arg Met Gln Arg Ser Arg Pro Xaa
 85 90

<210> 4285
 <211> 591
 <212> DNA
 <213> Homo sapiens

<400> 4285
 nagatctcag agaacttggt gaacattcag aaaatgcaga aaacgcaggt gaaatgccgc
 60
 aaaatcctga ccaagatgaa gcagcagggt catgagacag ccgcctgtcc ggagactgaa
 120
 gagataccgc agggagccag tggctgctgg aaggatgacc tccagaagga actgagtgat
 180
 atatggtgat gcccagcctg cagtctgacc cctgaccctc ctctgaaccc gttcccccaa
 240
 cgggatctgg cagtgaccac cagaacctgg agcccacctg agtccagact tccctcaccc
 300
 cctaggactc accccaccac ggcccccaac cttagctgta ctgctgtcta caccctgagc
 360
 agtgtggagt ctcccagcgc cccagctcc ttgtcttctt gcaggctctgc tgtgcacgtg
 420
 ctgcaggact ccatagacag cctcactttg tgctcggggg cctgtcccaa ggctctgagc
 480
 ctaagaggcc acaagggcac cagtgcctga gccctccact cccctcctgg gactctgact
 540
 ccgactgtga ccaggacctc tcccagccac ctttcagcaa gagcggccgc a
 591

<210> 4286
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4286
 Cys Pro Ala Cys Ser Leu Thr Pro Asp Pro Pro Leu Asn Pro Phe Pro
 1 5 10 15
 Gln Arg Asp Leu Ala Val Thr Thr Arg Thr Trp Ser Pro Pro Glu Ser

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<210> 4288
<211> 240
<212> PRT
<213> Homo sapiens
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<400> 4288

```

Met Arg Val Ala Thr Lys Ser Gly Arg Lys Arg Trp Leu Lys Ala Thr
 1           5           10           15
Thr Met Lys Asn Ser Val Arg Leu Val Ala Met Ala Pro Ser Pro Ala
 20           25           30
Leu Thr Ser Ile Ser Ser Glu Pro Ser Glu Ala Trp Val Gln Ala Phe
 35           40           45
Ala Ser Tyr Arg Met Ser Pro Gly Asn Trp Lys Thr Xaa Val Leu Ala
 50           55           60
Gln Thr Leu Val Glu Ala Leu Gln Leu Asp Pro Glu Thr Leu Ala Asn
 65           70           75           80
Glu Thr Ala Ala Arg Ala Ala Asn Val Ala Arg Ala Ala Ser Asn
 85           90           95
Arg Ala Ala Arg Ala Ala Ala Ala Arg Thr Ala Phe Ser Gln
100           105           110
Val Val Ala Ser His Arg Val Ala Thr Pro Gln Val Ser Gly Glu Asp
115           120           125
Thr Gln Pro Thr Thr Tyr Ala Ala Glu Ala Gln Gly Pro Thr Pro Glu
130           135           140
Pro Pro Leu Ala Ser Pro Gln Thr Ser Gln Met Leu Val Thr Ser Lys
145           150           155           160
Met Ala Ala Pro Glu Ala Pro Ala Thr Ser Ala Gln Ser Gln Thr Gly
165           170           175
Ser Pro Ala Gln Glu Ala Ala Thr Glu Gly Pro Ser Ser Ala Cys Ala
180           185           190
Phe Ser Gln Ala Pro Cys Ala Arg Glu Val Asp Ala Asn Arg Pro Ser
195           200           205
Thr Ala Phe Leu Gly Gln Asn Asp Val Phe Asp Phe Thr Gln Pro Ala
210           215           220
Val Ser Val Ala Trp Leu Pro Ala Pro Lys Arg Pro Ala Gln Pro Arg
225           230           235           240

```

<210> 4289

<211> 353

<212> DNA

<213> Homo sapiens

<400> 4289

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ggatccctgg gaagatgact accctgcctg tgcgggatat gagggagaaa tatgggagcc
60
tcctcacttc aggtgtcact gctcagcata tatccaggct ttgttttcat attggtcttg
120
caaagagcct tttgggaaca gttttcttat tgaaacatac tcagtgttta aacctgcagg
180
tgtgggttgg tggcagtcca catggcatcc tttgtctgtt ccctgttctc ctgtctctgg
240
ctattcaggt tcccgtgagg atactgtcac ccttgaataa tggagcttgc ggaagaccaa
300
gccctgttt ttggagtcct tgtgctgagg ccgctgtaac ttgcggagag ttg
353

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<210> 4290

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4290

```

Met Thr Thr Leu Pro Val Arg Asp Met Arg Glu Lys Tyr Gly Ser Leu
 1           5           10           15
Leu Thr Ser Gly Val Thr Ala Gln His Ile Ser Arg Leu Cys Phe His
 20           25           30
Ile Gly Leu Ala Lys Ser Leu Leu Gly Thr Val Phe Leu Leu Lys His
 35           40           45
Thr Gln Cys Leu Asn Leu Gln Val Trp Val Gly Gly Ser Pro His Gly
 50           55           60
Ile Leu Cys Ser Val Pro Val Leu Leu Ser Leu Ala Ile Gln Val Pro
 65           70           75           80
Val Arg Ile Leu Ser Pro Leu Asn Asn Gly Ala Cys Gly Arg Pro Ser
 85           90           95
Pro Cys Phe Trp Ser Pro Cys Ala Glu Ala Ala Val Thr Cys Gly Glu
100           105           110
Leu

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<210> 4291

<211> 517

<212> DNA

<213> Homo sapiens

<400> 4291

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nnaaatttgc caagccaaga gttaccccag gaagattctc ttttacatgg ccaattttca
60
caagcagtca ctcccctagc ccatcatcac acagattatt caaagcccac cgatatctca
120
tggagagaca cactttctca gaagtttgga tcctcagatc acttggagaa actattttaag
180
atggatgaag caagtgccca gctccttgct tataaggaaa aaggccattc tcagagttca
240
caattttcct ctgatcaaga aatagctcat ctgctgcctg aaaatgtgag tgcgctccca
300
gctacgggtg cagttgcttc tccacatacc acctcggcta ctccaaagcc cgccaccctt
360
ctaccaccca atgcttcagt gacaccttct gggacttccc agccacagct ggccaccaca
420
gctccacctg taaccactgt cacttctcag cctcccacga cctcatttc tacagttttt
480
acacgggctg tggetacact ccaagcaatg gctacaa
517

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<210> 4292

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4292

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Xaa Asn Leu Pro Ser Gln Glu Leu Pro Gln Glu Asp Ser Leu Leu His
 1           5           10           15
Gly Gln Phe Ser Gln Ala Val Thr Pro Leu Ala His His His Thr Asp

```

<400> 4294
Ala Gly Ala Pro Gly Ala Asp Ala Cys Ser Val Pro Val Ser Glu Ile

```

      1             5             10             15
Ile Ala Val Glu Glu Thr Asp Val His Gly Lys His Gln Gly Ser Gly
      20             25             30
Lys Trp Gln Lys Met Glu Lys Pro Tyr Ala Phe Thr Val His Cys Val
      35             40             45
Lys Arg Ala Arg Arg His Arg Trp Lys Trp Ala Gln Val Thr Phe Trp
      50             55             60
Cys Pro Glu Glu Gln Leu Cys His Leu Trp Leu Gln Thr Leu Arg Glu
      65             70             75             80
Met Leu Glu Lys Leu Thr Ser Arg Pro Lys His Leu Leu Val Phe Ile
      85             90             95
Asn Pro Phe Gly Gly Lys Gly Gln Gly Lys Arg Ile Tyr Glu Arg Lys
      100            105            110
Val Ala Pro Leu Phe Thr Leu Ala Ser Ile Thr Thr Asp Ile Ile Val
      115            120            125
Thr Glu His Ala Asn Gln Ala Lys Glu Thr Leu Tyr Glu Ile Asn Ile
      130            135            140
Asp Lys Tyr Asp Gly Ile Val Cys Val Gly Gly Asp Gly Met Phe Ser
      145            150            155            160
Glu Val Leu His Gly Leu Ile Gly Arg Thr Gln Arg Ser Ala Gly Val
      165            170            175
Asp Gln Asn His Pro Arg
      180

```

<210> 4295

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4295

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nntctagaaa atcactgtct ccttctaccc tgccatctct acaccagggt tacaacaag
60
agcccaactgc tggtccttg ttttgtaaat aagatttggt ggactacagc tatgcccgta
120
catgtacatt ttgtgtatgg ctgcttttgt gccacaacag cagggttgag tattgcgaca
180
gagacccccca ttgccacaaa gcctaaaaca tttgccatcg agccctttaa gaaagagttt
240
gctggccgtg cgcggtggcc gtggctcccg cctgtaatcc cagcactttg gaaggctgag
300
gcaggcggtg aggtctggag ttcgaaaacca gcctggccag cgtggcgaaa ccctgtctcc
360
ccctcccaga ttcacgtgat tatccacact cagcctctg agtacctggg actataggcg
420
cgtgccaacc a
431

```

<210> 4296

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4296

```

Xaa Leu Glu Asn His Cys Leu Leu Leu Pro Cys His Leu Tyr Thr Arg

```


1	5	10	15
Val Thr Asn Lys Ser Pro Leu Leu Ala Pro Cys Phe Val Asn Lys Ile			
	20	25	30
Cys Trp Thr Thr Ala Met Pro Val His Val His Phe Val Tyr Gly Cys			
	35	40	45
Phe Cys Ala Thr Thr Ala Gly Leu Ser Ile Ala Thr Glu Thr Pro Ile			
	50	55	60
Ala His Lys Pro Lys Thr Phe Ala Ile Glu Pro Phe Lys Lys Glu Phe			
65	70	75	80
Ala Gly Arg Ala Arg Trp Pro Trp Leu Pro Pro Val Ile Pro Ala Leu			
	85	90	95
Trp Lys Ala Glu Ala Gly Gly Glu Val Trp Ser Ser Lys Pro Ala Trp			
	100	105	110
Pro Ala Trp Arg Asn Pro Val Ser Pro Ser Gln Ile His Val Ile Ile			
	115	120	125
Pro Pro Gln Pro Pro Glu Tyr Leu Gly Leu			
130	135		

<210> 4297

<211> 1668

<212> DNA

<213> Homo sapiens

<400> 4297

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nccatggact cggcctttgt gggataaaag gtcaaccaag tgtcagctgc agttggaaaa
60
gatttcaccg tgattccatc taaactgatt cagtttgacc caggaatgtc aactaagatg
120
tggaatatag caattaccta tgacggatta gaggaagatg atgaggtctt tgaagtaatt
180
ctgaactccc ctgtgaatgc agttcttggc acaaagacaa aagctgcagt gaaaattttg
240
gactcaaaag gaggacaatg ccacccctca tattcctcca accaaagcaa gcacagcaca
300
tgggagaagg gcatttgcca tctgctgccc ccaggggtctt cctcatccac cacttctggt
360
tcctttcatc tggaagaag acctcttcca tcttccatgc agctagcagt catcagggga
420
gacaccctgc ggggctttga ttctacagat ctttctcaaa ggaagcttag gaccctggg
480
aatggcaaaa cagttcgtcc atcctctggt tatagaaatg gaacagacat catctataat
540
tatcatggga tagtttcctt gaaactggag gatgacagtt tcccaactca caaaagggaag
600
gccaaagtat ccacatttag tcagccacaa aagacaatca aagtggcaga actgcctcaa
660
gcagataagg tggaatccac aactgactca cacttcccca gacaggacca gttgccctca
720
tttccaaaga actgcactct ggaattaaag ggactcttcc attttgaaga aggcattccag
780
aagctgtatc agtgcaatgg gatgcctgg aaagcctgga gtccccaac caaggatgtg
840
gaagacaaat cctgtccagc cgggtggcac cagcactcag gctactgtca catcttgatc
900

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acagagcaga aaggcacctg gaatgcggtt gcccaagctt gcagggaaca atacctgggc
 960
 aaccttgtaa ctgtattctc caggcagcac atgcggtggc tctgggacat tgggtgggaga
 1020
 aagtcctttt ggataggttt gaacgaccaa gtgcatgctg gccactggga gtggatcggg
 1080
 ggtgaacctg ttgccttcac caatgggaga agagggccct ctccacgctc caagcttggg
 1140
 aagagctgtg ttttggttca aagacaaggg aaatggcaaa caaaagactg taggagagcc
 1200
 aaacctcata attatgtgtg ttccagaaaa ctctaaatat aacagaccct acagggggcc
 1260
 acctggagtt tgtcacctat ttattcacag gatctgtgaa tattgctcca tagaaaacaa
 1320
 attggtatga ttgagtgggt atacctttgt gattctgtct agtgaaaatg ggacattttt
 1380
 aatagtcca gaaagattga taaataaata ttttttacia gataagatac aatttttcta
 1440
 tctcaatacc ttttaaaata aatgccagca gtattaaaaa gtgtaagggt tgtttattcc
 1500
 agaagaccct cacccttacc ccattccaaa tctcaggagg caccagtctc atagtccttg
 1560
 gatttttttt aaaaaaaatt tttggtcccg ttacctctaa tgaatttatt ctgaaatatg
 1620
 tatcgtaggt gtcctacca ctttagtctg agtggaaagc caaaaaac
 1668

<210> 4298

<211> 411

<212> PRT

<213> Homo sapiens

<400> 4298

Xaa	Met	Asp	Ser	Ala	Phe	Val	Gly	Ile	Lys	Val	Asn	Gln	Val	Ser	Ala
1				5				10					15		
Ala	Val	Gly	Lys	Asp	Phe	Thr	Val	Ile	Pro	Ser	Lys	Leu	Ile	Gln	Phe
		20					25					30			
Asp	Pro	Gly	Met	Ser	Thr	Lys	Met	Trp	Asn	Ile	Ala	Ile	Thr	Tyr	Asp
		35				40					45				
Gly	Leu	Glu	Glu	Asp	Asp	Glu	Val	Phe	Glu	Val	Ile	Leu	Asn	Ser	Pro
	50				55			60							
Val	Asn	Ala	Val	Leu	Gly	Thr	Lys	Thr	Lys	Ala	Ala	Val	Lys	Ile	Leu
65				70				75				80			
Asp	Ser	Lys	Gly	Gly	Gln	Cys	His	Pro	Ser	Tyr	Ser	Ser	Asn	Gln	Ser
			85				90					95			
Lys	His	Ser	Thr	Trp	Glu	Lys	Gly	Ile	Trp	His	Leu	Leu	Pro	Pro	Gly
		100					105					110			
Ser	Ser	Ser	Ser	Thr	Thr	Ser	Gly	Ser	Phe	His	Leu	Glu	Arg	Arg	Pro
		115				120					125				
Leu	Pro	Ser	Ser	Met	Gln	Leu	Ala	Val	Ile	Arg	Gly	Asp	Thr	Leu	Arg
	130				135			140							
Gly	Phe	Asp	Ser	Thr	Asp	Leu	Ser	Gln	Arg	Lys	Leu	Arg	Thr	Arg	Gly
145				150				155				160			
Asn	Gly	Lys	Thr	Val	Arg	Pro	Ser	Ser	Val	Tyr	Arg	Asn	Gly	Thr	Asp

```

                165                170                175
Ile Ile Tyr Asn Tyr His Gly Ile Val Ser Leu Lys Leu Glu Asp Asp
                180                185                190
Ser Phe Pro Thr His Lys Arg Lys Ala Lys Val Ser Ile Ile Ser Gln
                195                200                205
Pro Gln Lys Thr Ile Lys Val Ala Glu Leu Pro Gln Ala Asp Lys Val
                210                215                220
Glu Ser Thr Thr Asp Ser His Phe Pro Arg Gln Asp Gln Leu Pro Ser
225                230                235                240
Phe Pro Lys Asn Cys Thr Leu Glu Leu Lys Gly Leu Phe His Phe Glu
                245                250                255
Glu Gly Ile Gln Lys Leu Tyr Gln Cys Asn Gly Ile Ala Trp Lys Ala
                260                265                270
Trp Ser Pro Gln Thr Lys Asp Val Glu Asp Lys Ser Cys Pro Ala Gly
                275                280                285
Trp His Gln His Ser Gly Tyr Cys His Ile Leu Ile Thr Glu Gln Lys
                290                295                300
Gly Thr Trp Asn Ala Ala Ala Gln Ala Cys Arg Glu Gln Tyr Leu Gly
305                310                315                320
Asn Leu Val Thr Val Phe Ser Arg Gln His Met Arg Trp Leu Trp Asp
                325                330                335
Ile Gly Gly Arg Lys Ser Phe Trp Ile Gly Leu Asn Asp Gln Val His
                340                345                350
Ala Gly His Trp Glu Trp Ile Gly Gly Glu Pro Val Ala Phe Thr Asn
                355                360                365
Gly Arg Arg Gly Pro Ser Pro Arg Ser Lys Leu Gly Lys Ser Cys Val
                370                375                380
Leu Val Gln Arg Gln Gly Lys Trp Gln Thr Lys Asp Cys Arg Arg Ala
385                390                395                400
Lys Pro His Asn Tyr Val Cys Ser Arg Lys Leu
                405                410

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<210> 4299

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4299

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nngcgaccgc tcttgctgaa aggtggctgg gagaggctct ggtcagagtc ggagtcagag
60
tcccaggagg ggagtggagg gctcaggcac tgggtgccctt gtggcctctt aggctcgagg
120
ccttgggaca ggccccgag cacaaagtga ggctgtctat ggagttctgc agcacgtgca
180
cagcagacca tatatcactc agttccttct ggaggtcac cttccagcag ccactggctc
240
cctgcggtat ctcttcagtc tccggacagg cggtgtctc atgaccctgc tgcttcatct
300
tggtcaggat ttgcgcat ttcacctgcg ttttctgcat tttctgaatg ttcaccaagt
360
tctctgagat ctcatcctcc tgcgcttgga gcttctgata gatgaaggtc acctcctccc
420
gcaccagttc cagctcctcc cacaggaact tcttgctgtc ccggatctcc tgggccagca
480

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gctgcaggca gcgagtgggtg cgggcccgt gcatctctc actgtcacgc agggctctct
 540
 ccagcccctg aaggccttgg gtcagggccc catacagctc ctgccggccc tgctccatgc
 600
 cccacttggtg ctccctcttc tctccatggc ggcctgtggg gctcagcacc tcttcaagct
 660
 gctgaatctt gatttgctgc aagcagctct ccttctccaa catggctact gagtggttca
 720
 ggaaactcgaa agccttggtc tgggcctgta actggctctt gagtgactca agttcacatc
 780
 gcaggagctt ctgggagtcg ggaatcatca caatggctctt ggctttgact ttggaagagc
 840
 tgggtctcaa gggcttcaca taccacctgt tcatgctctn cccatcaggg accacgaagc
 900
 cagtcctcag ctgtgacgct gaagtttgat cccgcgggga caccatcgta ttaaaacgct
 960
 cagagactga gtcacagaga ggggtgtc
 988

<210> 4300

<211> 84

<212> PRT

<213> Homo sapiens

<400> 4300

Gly	Cys	Leu	Trp	Ser	Ser	Ala	Ala	Arg	Ala	Gln	Gln	Thr	Ile	Tyr	His
1				5				10						15	
Ser	Val	Pro	Ser	Gly	Gly	His	Pro	Ser	Ser	Ser	His	Trp	Leu	Pro	Ala
				20				25					30		
Val	Ser	Leu	Gln	Ser	Pro	Asp	Arg	Arg	Leu	Ser	His	Asp	Pro	Ala	Ala
				35				40					45		
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<211> 2429

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Thr	Glu	Phe	Glu	Asn	Gly	Asn	Arg	Ser	Trp	Phe	Tyr	Phe	Ser	Val	Arg
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<212> DNA

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<212> PRT

<213> Homo sapiens

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Thr	Leu	Thr	Ala	Ala	Gly	Ala	Cys	Pro	Gly	Ala	Gly	Ala	Asp	Ala	Leu
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755	760	765
Pro Met Ala Arg Ser Thr Pro Ser Gln Glu Leu Leu Arg Ala Thr Gln		
770	775	780
Leu His Gln Tyr Val Glu Gly Phe Leu Leu His Gly Leu Leu Pro Ala		
785	790	795
His Val Ile Arg Leu Leu Leu Lys Pro His Val Gln Ala Gln Gln Asp		
805	810	815
Leu Gln Leu Leu Leu Glu Leu Leu Glu Lys Met Gly Leu Cys Tyr Cys		
820	825	830
Leu Asn Lys Pro Lys Gly Lys Pro Leu Asn Gly Ser Thr Ala Trp Tyr		
835	840	845
Lys Phe Pro Cys Tyr Val Gln Asn Glu Val Pro His Ala Glu Ala Trp		
850	855	860
Ile Asn Gly Thr Asn Leu Ala Gly Gln Ser Phe Val Ala Glu Gln Leu		
865	870	875
Gln Ile Glu Tyr Ser Phe Pro Phe Thr Phe Pro Pro Gly Leu Phe Ala		
885	890	895
Arg Tyr Ser Val Gln Ile Asn Ser His Val Val His Arg Ser Asp Gly		
900	905	910
Lys Phe Gln Ile Phe Ala Tyr Arg Gly Lys Val Pro Val Val Val Ser		
915	920	925
Tyr Arg Pro Ala Arg Gly Val Leu Gln Pro Asp Thr Leu Ser Ile Ala		

930	935	940
Ser His Ala Ser Leu Pro Asn Ile Trp Thr Ala Trp Gln Ala Ile Thr		
945	950	955
Pro Leu Val Glu Glu Leu Asn Val Leu Leu Gln Glu Trp Pro Gly Leu		960
	965	970
His Tyr Thr Val His Ile Leu Cys Ser Lys Cys Leu Lys Arg Gly Ser		975
	980	985
Pro Asn Pro His Ala Phe Pro Gly Glu Leu Leu Ser Gln Pro Arg Pro		990
	995	1000
Glu Gly Val Ala Glu Ile Ile Cys Pro Lys Asn Gly Ser Glu Arg Val		1005
	1010	1015
Asn Val Ala Leu Val Tyr Pro Pro Thr Pro Thr Val Ile Ser Pro Cys		1020
1025	1030	1035
Ser Lys Lys Asn Val Gly Glu Lys His Arg Asn Gln		1040
	1045	1050

<210> 4307

<211> 947

<212> DNA

<213> Homo sapiens

<400> 4307

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 120
 aggacagaac tgatcgatac gtccaggctc tgaggaccgt ctctctctc ctgggcgagc
 180
 cgttcttcac taccagcctg ctgccgtggc acaacctcta cttctgttac gtgcggacgc
 240
 tgtggaccag cacctggggc cagggtgcat ggtgatgcc caggcagcct cgctgcacgc
 300
 tgtggttggt gagttcaggg tgtgcaggga acagcaagat gtgcctcttg ttcttgctgc
 360
 cacgcttccc tgtgtcctgc gggcggtgtt ggtggggct gctccttctt cacaggancc
 420
 tgtggcggtat ccggagccnc ctgtggtgac tgcgaaggct tcgacgtgca catcatggat
 480
 gacatgatta aggtaggcag ggccacactc tgcatagtcc ccccgacctg ctctgtatc
 540
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 600
 gtcagggtgt gccattttgt gtggttcaac atgagcattg cttggtacca gccctgttct
 660
 tggctccgtg ctgtcacctc gtgtcagaat ctccactggg cctgcacgtc ctgtcattgc
 720
 aactgcccct gccagtgcc acagcttctt ttctagtggg gctgacttcc cagaggccat
 780
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 840
 tgaggagatt cccacaggtt atttacatgg taggggttag caactgggac tacgttctcc
 900
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 947

<210> 4308
 <211> 200
 <212> PRT
 <213> Homo sapiens

<400> 4308
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 20 25 30
 Ala Pro Gly Ala Arg Cys His Gly Asp Ala Pro Gly Ser Leu Ala Ala
 35 40 45
 Arg Cys Gly Cys Gly Val Gln Gly Val Gln Gly Thr Ala Arg Cys Ala
 50 55 60
 Ser Cys Ser Cys Cys His Ala Ser Leu Cys Pro Ala Gly Gly Cys Gly
 65 70 75 80
 Trp Gly Cys Ser Phe Leu Thr Gly Xaa Cys Gly Gly Ser Gly Ala Xaa
 85 90 95
 Cys Gly Asp Cys Glu Gly Phe Asp Val His Ile Met Asp Asp Met Ile
 100 105 110
 Lys Val Gly Arg Ala Thr Leu Cys Ile Val Pro Pro Thr Cys Ser Cys
 115 120 125
 Ile Ala Gly Leu Ser Gln Gly Pro Ser Leu Gly Ser Thr Gly Ser Ser
 130 135 140
 Val Gly Gly Ser Glu Val Arg Cys Cys His Phe Val Trp Phe Asn Met
 145 150 155 160
 Ser Ile Ala Trp Tyr Gln Pro Cys Ser Trp Leu Arg Ala Val Thr Leu
 165 170 175
 Cys Gln Asn Leu His Trp Ala Cys Thr Ser Cys His Cys Asn Cys Pro
 180 185 190
 Cys Gln Cys Pro Gln Leu Leu Phe
 195 200

<210> 4309
 <211> 1928
 <212> DNA
 <213> Homo sapiens

<400> 4309
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 gtcgcctttg aactggaga actgaacaga ttgggagggt gatgtgttaa gaccacataa
 180
 tccatttgaa atctcaacct ttccagggtc actatcacct tcaatgacat tcacagaagt
 240
 ttccegatct gttaaactgt ctgaaatact tggatgattt tcatccaaag ttgaagtttc
 300
 aagatttggt tcatcattca cctgttgaat tataaccctt tctgaatgct ttgatttata
 360
 aataggcatg aaaaattcag ttggtgaagg gaatatctcg ttctcatcct ttggtgccga
 420

caataacata tccaaagcct tttggtattg ttgacgttcc tgetgaattg ttacttcact
480
ttcatttttt aattcatttg gttctgaatt cccagccttt tcaaaatcaa atacattcaa
540
catatcaaca tcattttgct ttaccgagtt ttccctccgat gtgcagccta agtctacttt
600
caggacatgc agcaggtggc gcattttttc ctccctccaaa tgtttatttt gttttatatg
660
tcgctcgaac agtcgttcta aaaacctggt tgaaaataaa ccaagtttca aaatttcac
720
tgttacatct tcaatgaaac tcagatacaa cagttcttct tcatcagagt agattttacg
780
agttgaaggg ggcttcaggg aatactgaca cattgccctt ggtgaggaat gctgaagagc
840
atcatcctta atctcatccc atgttgagtc atgcccttct aaaggtaaag gagctatttt
900
ttctttggca tcatatgtca cacaattaga tgcttgcttt atgttcattt ctgaatctgt
960
catgttttta gtctcagctg tccccaaact agatttaaag cttaattcag tctgggttc
1020
agcttctatc cggtgatctg taaaatcctt tttcttttg gcaggtgtat aatagcgata
1080
ctgtgacagg aaagattttg cttctgtttt taaagtgcga ggagtgaatg gcaattggtt
1140
gttagaaaag agttcagaat gtttatccaa aagatcccca ctgggtgctt tcgaaatgac
1200
taactgaaac cgggtgggaat ttgggaatgt gcttctgggc cttctgccat acagggctcc
1260
agagctcagt ttccggggcc cggaggctgc ataatccaca ctggacgggg aggaactgga
1320
gttcttctca ggaccatttg tgatgacttt actggattta tgtagactta ggtgtagtct
1380
ctctgaagag ggtactagt accttgcaaa ggatgaaaat ccattcattt cttcttttaa
1440
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1500
ggaattattt ttataattgg ctgcattgc agttttagtt aatttgaact ctttttcaca
1560
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1620
actcacgctt actggaaccg agcagtctac tgcagctttg gctgaaagga ttttattata
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gtgaacagcc atgtgattct tgaccagctg gagagtgcct agtctgagag aagaggagtc
1740
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1800
tctgggaagg acagaggttg ctctgactct ccggctgcca ttcattgetta gtcctcttgc
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1920
tggaggac
1928

<210> 4310

<212> PRT

<213> Homo sapiens

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Gly	Pro	Pro	Cys	Leu	Phe	Lys	Gly	His	Leu	Ser	Thr	Lys	Ser	Asn	Ala
			20					25					30		
Phe	Cys	Thr	Asp	Ser	Ser	Ser	Leu	Arg	Leu	Ser	Thr	Leu	Gln	Leu	Val
		35					40					45			
Lys	Asn	His	Met	Ala	Val	His	Tyr	Asn	Lys	Ile	Leu	Ser	Ala	Lys	Ala
	50						55				60				
Ala	Val	Asp	Cys	Ser	Val	Pro	Val	Ser	Val	Ser	Thr	Ser	Ile	Lys	Tyr
65					70					75					80
Ala	Asp	Gln	Gln	Arg	Arg	Glu	Lys	Leu	Lys	Lys	Glu	Leu	Ala	Gln	Cys
				85					90					95	
Glu	Lys	Glu	Phe	Lys	Leu	Thr	Lys	Thr	Ala	Met	Arg	Ala	Asn	Tyr	Lys
			100					105					110		
Asn	Asn	Ser	Lys	Ser	Leu	Phe	Asn	Thr	Leu	Gln	Lys	Pro	Ser	Gly	Glu
	115						120					125			
Pro	Gln	Ile	Glu	Asp	Asp	Met	Leu	Lys	Glu	Glu	Met	Asn	Gly	Phe	Ser
	130					135					140				
Ser	Phe	Ala	Arg	Ser	Leu	Val	Pro	Ser	Ser	Glu	Arg	Leu	His	Leu	Ser
145					150					155					160
Leu	His	Lys	Ser	Ser	Lys	Val	Ile	Thr	Asn	Gly	Pro	Glu	Lys	Asn	Ser
				165					170					175	
Ser	Ser	Ser	Pro	Ser	Ser	Val	Asp	Tyr	Ala	Ala	Ser	Gly	Pro	Arg	Lys
			180					185					190		
Leu	Ser	Ser	Gly	Ala	Leu	Tyr	Gly	Arg	Arg	Pro	Arg	Ser	Thr	Phe	Pro
	195						200					205			
Asn	Ser	His	Arg	Phe	Gln	Leu	Val	Ile	Ser	Lys	Ala	Pro	Ser	Gly	Asp
	210					215					220				
Leu	Leu	Asp	Lys	His	Ser	Glu	Leu	Phe	Ser	Asn	Lys	Gln	Leu	Pro	Phe
225					230					235					240
Thr	Pro	Arg	Thr	Leu	Lys	Thr	Glu	Ala	Lys	Ser	Phe	Leu	Ser	Gln	Tyr
				245					250					255	
Arg	Tyr	Tyr	Thr	Pro	Ala	Lys	Arg	Lys	Lys	Asp	Phe	Thr	Asp	Gln	Arg
			260					265					270		
Ile	Glu	Ala	Glu	Thr	Gln	Thr	Glu	Leu	Ser	Phe	Lys	Ser	Glu	Leu	Gly
	275						280					285			
Thr	Ala	Glu	Thr	Lys	Asn	Met	Thr	Asp	Ser	Glu	Met	Asn	Ile	Lys	Gln
	290					295					300				
Ala	Ser	Asn	Cys	Val	Thr	Tyr	Asp	Ala	Lys	Glu	Lys	Ile	Ala	Pro	Leu
305					310					315					320
Pro	Leu	Glu	Gly	His	Asp	Ser	Thr	Trp	Asp	Glu	Ile	Lys	Asp	Asp	Ala
				325					330					335	
Leu	Gln	His	Ser	Ser	Pro	Arg	Ala	Met	Cys	Gln	Tyr	Ser	Leu	Lys	Pro
			340					345					350		
Pro	Ser	Thr	Arg	Lys	Ile	Tyr	Ser	Asp							

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385          390          395          400
Lys His Leu Glu Glu Glu Lys Met Arg His Leu Leu His Val Leu Lys
          405          410          415
Val Asp Leu Gly Cys Thr Ser Glu Glu Asn Ser Val Lys Gln Asn Asp
          420          425          430
Val Asp Met Leu Asn Val Phe Asp Phe Glu Lys Ala Gly Asn Ser Glu
          435          440          445
Pro Asn Glu Leu Lys Asn Glu Ser Glu Val Thr Ile Gln Gln Glu Arg
          450          455          460
Gln Gln Tyr Gln Lys Ala Leu Asp Met Leu Leu Ser Ala Pro Lys Asp
465          470          475          480
Glu Asn Glu Ile Phe Pro Ser Pro Thr Glu Phe Phe Met Pro Ile Tyr
          485          490          495
Lys Ser Lys His Ser Glu Gly Val Ile Ile Gln Gln Val Asn Asp Glu
          500          505          510
Thr Asn Leu Glu Thr Ser Thr Leu Asp Glu Asn His Pro Ser Ile Ser
          515          520          525
Asp Ser Leu Thr Asp Arg Glu Thr Ser Val Asn Val Ile Glu Gly Asp
          530          535          540
Ser Asp Pro Glu Lys Val Glu Ile Ser Asn Gly Leu Cys Gly Leu Asn
545          550          555          560
Thr Ser Pro Ser Gln Ser Val Gln Phe Ser Ser Val Lys Gly Asp Asn
          565          570          575
Asn His Asp Met Glu Leu Ser Thr Leu Lys Ile Met Glu Met Ser Ile
          580          585          590
Glu Asp Cys Pro Leu Asp Val
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<210> 4311

<211> 432

<212> DNA

<213> Homo sapiens

<400> 4311

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120
aaaaacataa ccactggggc atctgcagca tcccagactc agatgcctac gggccagaca
180
ggcaactgtg agtccccctt agggagcaag gaggacctca actccaaaga gaacctggat
240
gccgatgagg gagatgggaa aagtaacgac ctcgctcctta gttgtcctta ctttagaaat
300
gagactggag gggaaggcga caggcggatt gcgctctctc gagccaactc atcctctttc
360
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420
gtctccgtct tg
432

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<210> 4312

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4312

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Xaa Arg Val Lys Gly Ile Arg Pro Trp Asn Cys Gln Arg Cys Phe Ala
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His Tyr Asp Val Gln Ser Ile Leu Phe Asn Ile Asn Glu Ala Met Ala
          20          25          30
Thr Arg Ala Asn Val Gly Lys Arg Lys Asn Ile Thr Thr Gly Ala Ser
          35          40          45
Ala Ala Ser Gln Thr Gln Met Pro Thr Gly Gln Thr Gly Asn Cys Glu
          50          55          60
Ser Pro Leu Gly Ser Lys Glu Asp Leu Asn Ser Lys Glu Asn Leu Asp
          65          70          75          80
Ala Asp Glu Gly Asp Gly Lys Ser Asn Asp Leu Val Leu Ser Cys Pro
          85          90          95
Tyr Phe Arg Asn Glu Thr Gly Gly Glu Gly Asp Arg Arg Ile Ala Leu
          100         105         110
Ser Arg Ala Asn Ser Ser Ser Phe Ser Ser Gly Glu Ser Cys Ser Phe
          115         120         125
Glu Ser Ser Leu Ser Ser His Cys Thr Asn Ala Gly Val Ser Val Leu
          130         135         140

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<210> 4313

<211> 936

<212> DNA

<213> Homo sapiens

<400> 4313

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aggtgctgcc tgacaggttc ttctctccct gtctctggtc attgatccat ctctttgtcc
120
attcagtatc caaccatcct ctccattctc ctctggacct caccactctc agagctgctt
180
gtcctggcag aatctacagt tcaccccaac tctatgcctt acccctccca acccaacagc
240
atttgagtt tgcaaaatat acagacccaa gtccctgaggg gactgaggac atgatgctgg
300
gccaagtct cctgtcagg gcttctctcc aatgccagcc ctgccactcc ttcctcaccc
360
tccttgaggc ctctctgct gcttgctat cccaacggcc ctgctcccct cccttctgc
420
ccttcaccag ctttctggga caccatgccc tgaggaaggg acctttgggt ttctctaaac
480
atctttgaag ggctgaggca gtcagggtct gctgccttgt cactctttat ttggaagcca
540
ctcaaaccat tcccaagaag agggacctca gctggcaatc tggaaacctg gccaggtct
600
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660
atggccctgt ggtccctaga gcacccctca tgctgtaggg tctgcagcc ccaccccttc
720
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780

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gtttacttct ctgcacgggg gactcacccc aagaccattt ccagcagctt cccaggtgat
840
gtggtgcccc aaggctgggc ttgacagctg tggcccagct ccttagtgct gcccaggaga
900
caccaggctg ctcagaatga ggtgactgcg ggcaac
936

<210> 4314
<211> 110
<212> PRT
<213> Homo sapiens

<400> 4314
Met Ser Ser Leu Leu Leu Pro Ser Gln Ser Cys Asp Pro Val Met Ser
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Thr Arg Met Ala Leu Trp Ser Leu Glu His Pro Ser Cys Cys Arg Val
20 25 30
Leu Gln Pro His Pro Phe Ser Thr Gly Pro Trp Tyr Pro Gly Ser Ser
35 40 45
Leu Ser Ser Ala Thr Asp Leu Cys Ala Leu Val Tyr Phe Ser Ala Arg
50 55 60
Gly Thr His Pro Lys Thr Ile Ser Ser Ser Phe Pro Gly Asp Val Val
65 70 75 80
Pro Gln Gly Trp Ala Leu Gln Leu Trp Pro Ser Ser Leu Val Leu Pro
85 90 95
Arg Arg His Gln Ala Ala Gln Asn Glu Val Thr Ala Gly Asn
100 105 110

<210> 4315
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4315
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120
cacctaccat ccaagccatg gtcaccttca ccaagccaca gtcacttacc atccaagcca
180
ccgtcaccta ccatccaagc catggccacc tacctgcaa gccatggcca cctaccggcc
240
aagccatggt cacctaccca ccaagtcatg gtgccttacc atccaaggag caggcctgga
300
acagatcctt cccagagcc ctcagtagga gccaacctg ctgacacctt gatctcagac
360
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420
tctcttgta cagttgcatt agccagtga cctaccggg cccttctgca gtgcctggc
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agacccgagg gagatatttg ggaaacaaga tgg
573

<210> 4316
 <211> 169
 <212> PRT
 <213> Homo sapiens

<400> 4316
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 1 5 10 15
 His Arg Gln Ala Gln Ser Asp Asp His Val Lys Thr Gln Gly Arg Asp
 20 25 30
 Gly His Leu Pro Pro Arg His Gly His Leu Pro Ser Lys Pro Trp Ser
 35 40 45
 Pro Ser Pro Ser His Ser His Leu Pro Ser Lys Pro Pro Ser Pro Thr
 50 55 60
 Ile Gln Ala Met Ala Thr Tyr Leu Pro Ser His Gly His Leu Pro Ala
 65 70 75 80
 Lys Pro Trp Ser Pro Thr His Gln Val Met Val Ala Tyr His Pro Arg
 85 90 95
 Ser Arg Pro Gly Thr Asp Pro Ser Pro Glu Pro Ser Val Gly Ala Asn
 100 105 110
 Pro Ala Asp Thr Leu Ile Ser Asp Phe Lys Pro Pro Glu Leu Trp Asp
 115 120 125
 Asn Pro Ser Leu Ser Phe Asn Pro Pro Ser Met Trp Ser Leu Val Thr
 130 135 140
 Val Ala Leu Ala Ser Glu Pro Thr Arg Ala Leu Leu Gln Ser Pro Gly
 145 150 155 160
 Ser Gly Val Val Leu Val Arg Lys Phe
 165

<210> 4317
 <211> 744
 <212> DNA
 <213> Homo sapiens

<400> 4317
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 tcccatgccg aaaacataact ccagatatctt aatgaatttc gtgatagccg cttattcaca
 120
 gatgttatca tttgggtgga aggaaaagaa tttccttgcc atagagctgt gctctcagcc
 180
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 240
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 300
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 360
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 420
 aattgcttag gaatccagcg ctttgctgat acccattcac tcaaaacact cttcacaaaa
 480
 tgcaaaaatt ttgcgttaca gacttttgag gatgtatccc agcacgaaga atttcttgag
 540

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 600
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 720
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 744

<210> 4318

<211> 239

<212> PRT

<213> Homo sapiens

<400> 4318

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Ile	Leu	Gln	Ile	Phe	Asn	Glu	Phe	Arg	Asp	Ser	Arg	Leu	Phe	Thr	Asp
			20					25				30			
Val	Ile	Ile	Trp	Val	Glu	Gly	Lys	Glu	Phe	Pro	Cys	His	Arg	Ala	Val
		35					40					45			
Leu	Ser	Ala	Cys	Ser	Ser	Tyr	Phe	Arg	Ala	Met	Phe	Cys	Asn	Asp	His
	50					55					60				
Arg	Glu	Ser	Arg	Glu	Met	Leu	Val	Glu	Ile	Asn	Gly	Ile	Leu	Ala	Glu
65					70					75				80	
Ala	Met	Glu	Cys	Phe	Leu	Gln	Tyr	Val	Tyr	Thr	Gly	Lys	Val	Lys	Ile
			85					90					95		
Thr	Thr	Glu	Asn	Val	Gln	Tyr	Leu	Phe	Glu	Thr	Ser	Ser	Leu	Phe	Gln
			100					105					110		
Ile	Ser	Val	Leu	Arg	Asp	Ala	Cys	Ala	Lys	Phe	Leu	Glu	Glu	Gln	Leu
		115				120						125			
Asp	Pro	Cys	Asn	Cys	Leu	Gly	Ile	Gln	Arg	Phe	Ala	Asp	Thr	His	Ser
	130					135					140				
Leu	Lys	Thr	Leu	Phe	Thr	Lys	Cys	Lys	Asn	Phe	Ala	Leu	Gln	Thr	Phe
145					150					155				160	
Glu	Asp	Val	Ser	Gln	His	Glu	Glu	Phe	Leu	Glu	Leu	Asp	Lys	Asp	Glu
				165				170					175		
Leu	Ile	Asp	Tyr	Ile	Cys	Ser	Asp	Glu	Leu	Val	Ile	Gly	Lys	Glu	Glu
		180						185				190			
Met	Val	Phe	Glu	Ala	Val	Met	Arg	Trp	Val	Tyr	Arg	Ala	Val	Asp	Leu
	195						200					205			
Arg	Arg	Pro	Leu	Leu	His	Glu	Leu	Leu	Thr	His	Val	Arg	Leu	Pro	Leu
	210					215				220					
Leu	His	Pro	Asn	Tyr	Phe	Val	Gln	Thr	Val	Glu	Val	Asp	Gln	Leu	
225					230					235					

<210> 4319

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4319

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 120
 gcagtcgcaa gtgactcttg caataatagc atctcactcc tatctgaaaa gttgacaagc
 180
 agctgttccc cccatcatat caagagaagt gtagtggaag ctatgcaacg ccaagctcgg
 240
 aaaatgtgca attacgacaa aatcttggtc acaaagaaaa acctagacca tgtcaataaa
 300
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 360
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<210> 4320

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4320

Xaa	Met	Glu	Lys	Ser	Ile	Asp	Ala	Val	Ile	Ala	Thr	Ala	Ser	Ala	Pro
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Pro	Ser	Ser	Ser	Pro	Gly	Arg	Ser	His	Ser	Lys	Asp	Arg	Thr	Leu	Gly
			20					25					30		
Lys	Pro	Asp	Ser	Leu	Leu	Val	Pro	Ala	Val	Ala	Ser	Asp	Ser	Cys	Asn
			35				40					45			
Asn	Ser	Ile	Ser	Leu	Leu	Ser	Glu	Lys	Leu	Thr	Ser	Ser	Cys	Ser	Pro
			50				55				60				
His	His	Ile	Lys	Arg	Ser	Val	Val	Glu	Ala	Met	Gln	Arg	Gln	Ala	Arg
65					70					75				80	
Lys	Met	Cys	Asn	Tyr	Asp	Lys	Ile	Leu	Ala	Thr	Lys	Lys	Asn	Leu	Asp
				85					90					95	
His	Val	Asn	Lys	Ile	Leu	Lys	Ala	Lys	Lys	Leu	Gln	Arg	Gln	Ala	Arg
			100					105						110	
Thr	Gly	Asn	Asn	Phe	Val	Lys	Arg	Arg	Pro	Gly	Arg	Pro	Arg	Ser	Glu
			115				120						125		

Arg

<210> 4321

<211> 278

<212> DNA

<213> Homo sapiens

<400> 4321

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 120
 cgtccccgtg gaaggcagcc ctgggcggaa cccaggcggt taacggctca ctaggcagcc
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 278

<210> 4322
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 4322
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 35 40 45
 Ala Val Ala Gly Pro Cys Arg Cys Gly Gly Leu Leu Thr Lys Glu Pro
 50 55 60
 Gly Leu Ala Ala Trp Asn Asn Leu Gln Val Gly Val Leu Arg Gly Leu
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 Trp Gln Val Leu Gly
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<210> 4323
 <211> 1542
 <212> DNA
 <213> Homo sapiens

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 240
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 360
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 420
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 480
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 780
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 840

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 960
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<210> 4324

<211> 514

<212> PRT

<213> Homo sapiens

<400> 4324

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			20					25					30		
Ser	Ser	Ala	Glu	Glu	Phe	Asp	Asp	Asp	Glu	Lys	Ile	Glu	Val	Asp	Asp
		35				40						45			
Pro	Pro	Asp	Lys	Glu	Asp	Met	Arg	Ser	Ser	Phe	Arg	Ser	Asn	Val	Leu
	50				55					60					
Thr	Gly	Ser	Ala	Pro	Gln	Gln	Asp	Tyr	Asp	Lys	Leu	Lys	Ala	Leu	Gly
65					70				75					80	
Gly	Glu	Asn	Ser	Ser	Lys	Thr	Gly	Leu	Ser	Thr	Ser	Gly	Asn	Val	Glu
			85					90					95		
Lys	Asn	Lys	Ala	Val	Lys	Arg	Glu	Thr	Glu	Ala	Ser	Ser	Ile	Asn	Leu
			100				105						110		
Ser	Val	Tyr	Glu	Pro	Phe	Lys	Val	Arg	Lys	Ala	Glu	Asp	Lys	Leu	Lys
		115				120					125				
Glu	Ser	Ser	Asp	Lys	Val	Leu	Glu	Asn	Arg	Val	Leu	Asp	Gly	Lys	Leu
		130				135					140				
Ser	Ser	Glu	Lys	Asn	Asp	Thr	Ser	Leu	Pro	Ser	Val	Ala	Pro	Ser	Lys
145				150					155					160	
Thr	Lys	Ser	Ser	Ser	Lys	Leu	Ser	Ser	Cys	Ile	Ala	Ala	Ile	Ala	Ala
			165					170					175		
Leu	Ser	Ala	Lys	Lys	Ala	Ala	Ser	Asp	Ser	Cys	Lys	Glu	Pro	Val	Ala

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      195      200      205
Arg Ala Ala Asp Lys Ser Pro Glu Ser Gln Asn Leu Ile Asp Gly Thr
      210      215      220
Lys Lys Pro Ser Leu Lys Gln Pro Asp Ser Pro Arg Ser Ile Ser Ser
225      230      235      240
Glu Asn Ser Ser Lys Gly Ser Pro Ser Ser Pro Ala Gly Ser Thr Pro
      245      250      255
Ala Ile Pro Lys Val Arg Ile Lys Thr Ile Lys Thr Ser Ser Gly Glu
      260      265      270
Ile Lys Arg Thr Val Thr Arg Val Leu Pro Glu Val Asp Leu Asp Ser
      275      280      285
Gly Lys Lys Pro Ser Glu Gln Thr Ala Ser Val Met Ala Ser Val Thr
      290      295      300
Ser Leu Leu Ser Ser Pro Ala Ser Ala Ala Val Leu Ser Ser Pro Pro
305      310      315      320
Arg Ala Pro Leu Gln Ser Ala Val Val Thr Asn Ala Val Ser Pro Ala
      325      330      335
Glu Leu Thr Pro Lys Gln Val Thr Ile Lys Pro Val Ala Thr Ala Phe
      340      345      350
Leu Pro Val Ser Ala Val Lys Thr Ala Gly Ser Gln Val Ile Asn Leu
      355      360      365
Lys Leu Ala Asn Asn Thr Thr Val Lys Ala Thr Val Ile Ser Ala Ala
      370      375      380
Ser Val Gln Ser Ala Ser Ser Ala Ile Ile Lys Ala Ala Asn Ala Ile
385      390      395      400
Gln Gln Gln Thr Val Val Val Pro Ala Ser Ser Leu Ala Asn Ala Lys
      405      410      415
Leu Val Pro Lys Thr Val His Leu Ala Asn Leu Asn Leu Leu Pro Gln
      420      425      430
Gly Ala Gln Ala Thr Ser Glu Leu Arg Gln Val Leu Thr Lys Pro Gln
      435      440      445
Gln Gln Ile Lys Gln Ala Ile Ile Asn Ala Ala Ala Ser Gln Pro Pro
      450      455      460
Lys Lys Val Ser Arg Val Gln Val Val Ser Ser Leu Gln Ser Ser Val
465      470      475      480
Val Glu Ala Phe Asn Lys Val Leu Ser Ser Val Asn Pro Val Pro Val
      485      490      495
Tyr Ile Pro Asn Leu Ser Pro Pro Ala Asn Ala Gly Ile Thr Leu Pro
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Thr Arg

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<210> 4325

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 4325

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cttctgcagg gactgtttca aggccttcta cgtccacaag ttcatagccca tgctgggcaa
120

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gaaccggctc atctttccag gcgagaaggt agcgtctggg tcctgggggt ctgactgagc
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 1405

<210> 4326

<211> 336

<212> PRT

<213> Homo sapiens

<400> 4326

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 Ala Lys Arg Leu Arg Phe Val Ala Gly Val Ile Phe Val Asp Glu Gly
 35 40 45
 Ala Ala Cys Gly Gln Ser Leu Glu Glu Arg Ser Lys Thr Leu Ala Glu
 50 55 60
 Val Lys Pro Ile Leu Gln Ala Thr Gly Phe Pro Trp His Val Val Ala
 65 70 75 80
 Leu Glu Glu Val Phe Ser Leu Pro Pro Ser Val Leu Trp Cys Ser Ala
 85 90 95
 Gln Glu Leu Val Gly Ser Glu Gly Ala Tyr Lys Ala Ala Val Asp Ser
 100 105 110
 Phe Leu Gln Gln Gln Tyr Val Leu Gly Ala Gly Gly Gly Pro Gly Pro
 115 120 125
 Thr Gln Gly Glu Glu Gln Pro Gln Pro Pro Leu Asp Pro Gln Asn
 130 135 140
 Leu Ala Arg Pro Pro Ala Pro Ala Gln Thr Glu Ala Leu Ser Gln Leu
 145 150 155 160
 Phe Cys Ser Val Arg Thr Leu Thr Ala Lys Glu Glu Leu Leu Gln Thr
 165 170 175
 Leu Arg Thr His Leu Ile Leu His Met Ala Arg Ala His Gly Tyr Ser
 180 185 190
 Lys Val Met Thr Gly Asp Ser Cys Thr Arg Leu Ala Ile Lys Leu Met
 195 200 205
 Thr Asn Leu Ala Leu Gly Arg Gly Ala Phe Leu Ala Trp Asp Thr Gly
 210 215 220
 Phe Ser Asp Glu Arg His Gly Asp Val Val Val Val Arg Pro Met Arg
 225 230 235 240
 Asp His Thr Leu Lys Glu Val Ala Phe Tyr Asn Arg Leu Phe Ser Val
 245 250 255
 Pro Ser Val Phe Thr Pro Ala Val Asp Thr Lys Ala Pro Glu Lys Ala
 260 265 270
 Ser Ile His Arg Leu Met Glu Ala Phe Ile Leu Arg Leu Gln Thr Gln
 275 280 285
 Phe Pro Ser Thr Val Ser Thr Val Tyr Arg Cys Val Trp Val Cys Ala
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<210> 4327

<211> 551

<212> DNA

<213> Homo sapiens

<400> 4327

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 120
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 551

<210> 4328

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4328

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Val	Thr	Leu	Leu	Ser	Gln	Arg	Trp	Val	Cys	Pro	Ile	Val	Val	Ser	Arg
		20						25				30			
Ala	Thr	Ser	Ser	Pro	Trp	Leu	Cys	Gly	Leu	Ser	Val	Ser	His	Pro	Gln
		35				40						45			
His	Leu	Asp	Gly	Leu	Arg	Val	Arg	Ala	Lys	Val	Arg	Arg	Pro	Gly	His
		50				55					60				
His	Thr	Ile	Pro	Ala	Thr	Thr	Arg	Trp	Leu	Phe	Leu	Glu	Ser	Glu	Gly
65					70					75				80	
Gly	Arg	Arg	Cys	Leu	Gly	Ser	Trp	Gly	Cys	Leu	Gly	Ser	Glu	Pro	Val
			85					90						95	
Arg	Val	Ser	Pro	Ala	Cys	Pro	Ser	Ile	Ser	Trp					
			100					105							

<210> 4329

<211> 3192

<212> DNA

<213> Homo sapiens

<400> 4329

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<210> 4330

<211> 371

<212> PRT

<213> Homo sapiens

<400> 4330

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Met	Leu	Leu	Asp	Tyr	Ser	Val	Tyr	Met	Gly	Arg	Cys	Val	Pro	Gln	Glu
			20					25				30			
Ser	Arg	Ser	Pro	Gln	Arg	Ser	Pro	Leu	Gln	Ser	Ala	Glu	Ser	Ser	Pro
		35					40					45			
Thr	Ala	Gly	Lys	Lys	Leu	Pro	Glu	Val	Pro	Pro	Ser	Glu	Glu	Glu	Glu

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 65 70 75 80
 Leu Gly Glu Lys Tyr Trp Ser Asp Leu Val Ser Lys Lys Ile Gln Met
 85 90 95
 Lys Leu Ser Lys Ile Lys Leu Pro Tyr Phe Met Asn Glu Leu Thr Leu
 100 105 110
 Thr Glu Leu Asp Met Gly Val Ala Val Pro Lys Ile Leu Gln Ala Phe
 115 120 125
 Lys Pro Tyr Val Asp His Gln Gly Leu Trp Ile Asp Leu Glu Met Ser
 130 135 140
 Tyr Asn Gly Ser Phe Leu Met Thr Leu Glu Thr Lys Met Asn Leu Pro
 145 150 155 160
 Lys Leu Gly Lys Glu Pro Leu Val Glu Ala Leu Lys Val Gly Glu Ile
 165 170 175
 Gly Lys Glu Gly Cys Arg Pro Arg Ala Phe Cys Leu Ala Asp Ser Asp
 180 185 190
 Glu Glu Ser Ser Ser Ala Gly Ser Ser Glu Glu Asp Asp Ala Pro Glu
 195 200 205
 Pro Ala Gly Glu Thr Asn Ser Ser Ser Gln Gly Glu Gly Tyr Val Gly
 210 215 220
 Gly His Arg Thr Ser Lys Ile Met Arg Phe Val Asp Lys Ile Thr Lys
 225 230 235 240
 Ser Lys Tyr Phe Gln Lys Ala Thr Glu Thr Glu Phe Ile Lys Arg Xaa
 245 250 255
 Ile Glu Glu Val Ser Asn Thr Pro Leu Leu Leu Thr Val Glu Val Gln
 260 265 270
 Glu Cys Arg Gly Thr Leu Ala Val Asn Ile Pro Pro Pro Pro Thr Asp
 275 280 285
 Arg Val Trp Tyr Gly Phe Arg Lys Pro Pro His Val Glu Leu Lys Ala
 290 295 300
 Arg Pro Lys Leu Gly Glu Arg Glu Val Thr Leu Val His Val Thr Asp
 305 310 315 320
 Trp Ile Glu Lys Lys Leu Glu Gln Glu Phe Gln Lys Val Phe Val Met
 325 330 335
 Pro Asn Met Asp Asp Val Tyr Ile Thr Ile Met His Ser Ala Met Asp
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 Pro Arg Ser Thr Ser Cys Leu Leu Lys Asp Pro Pro Val Glu Ala Ala
 355 360 365
 Asp Arg Pro
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<210> 4331

<211> 1355

<212> DNA

<213> Homo sapiens

<400> 4331

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 120
 gatttaaagt agcctttgca cctcagtttc cttcagaatg ctgcaaaact atatgctaca
 180

gtatattgta ttccatttgc agaagaggac ttatcagcag atgccctctt gaatattctt
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 300
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 360
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 480
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 660
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 780
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 1020
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 1080
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 1200
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 1320
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 1355

<210> 4332

<211> 345

<212> PRT

<213> Homo sapiens

<400> 4332

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Leu	Asp	Ile	Arg	Leu	Lys	Asp	Gly	Ser	Leu	Phe	Trp	Gln	Ser	Pro	Lys
			20					25				30			
Arg	Pro	Pro	Ser	Pro	Ile	Lys	Phe	Asp	Leu	Asn	Glu	Pro	Leu	His	Leu
			35				40				45				
Ser	Phe	Leu	Gln	Asn	Ala	Ala	Lys	Leu	Tyr	Ala	Thr	Val	Tyr	Cys	Ile

50 55 60
 Pro Phe Ala Glu Glu Asp Leu Ser Ala Asp Ala Leu Leu Asn Ile Leu
 65 70 75 80
 Ser Glu Val Lys Ile Gln Glu Phe Lys Pro Ser Asn Lys Val Val Gln
 85 90 95
 Thr Asp Glu Thr Ala Arg Lys Pro Asp His Val Pro Ile Ser Ser Glu
 100 105 110
 Asp Glu Arg Asn Ala Ile Phe Gln Leu Glu Lys Ala Ile Leu Ser Asn
 115 120 125
 Glu Ala Thr Lys Ser Asp Leu Gln Met Ala Val Leu Ser Phe Glu Lys
 130 135 140
 Asp Asp Asp His Asn Gly His Ile Asp Phe Ile Thr Ala Ala Ser Asn
 145 150 155 160
 Leu Arg Ala Lys Met Tyr Ser Ile Glu Pro Ala Asp Arg Phe Lys Thr
 165 170 175
 Lys Arg Ile Ala Gly Lys Ile Ile Pro Ala Ile Ala Thr Thr Thr Ala
 180 185 190
 Thr Val Ser Gly Leu Val Ala Leu Glu Met Ile Lys Val Thr Gly Gly
 195 200 205
 Tyr Pro Phe Glu Ala Tyr Lys Asn Cys Phe Leu Asn Leu Ala Ile Pro
 210 215 220
 Ile Val Val Phe Thr Glu Thr Thr Glu Val Arg Lys Thr Lys Ile Arg
 225 230 235 240
 Asn Gly Ile Ser Phe Thr Ile Trp Asp Arg Trp Thr Val His Gly Lys
 245 250 255
 Glu Asp Phe Thr Leu Leu Asp Phe Ile Asn Ala Val Lys Glu Lys Tyr
 260 265 270
 Gly Ile Glu Pro Thr Met Val Val Gln Gly Val Lys Met Leu Tyr Val
 275 280 285
 Pro Val Met Pro Gly His Ala Lys Arg Leu Lys Leu Thr Met His Lys
 290 295 300
 Leu Val Lys Pro Thr Thr Glu Lys Lys Tyr Val Asp Leu Thr Val Ser
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 Phe Ala Pro Asp Ile Asp Gly Asp Glu Asp Leu Pro Gly Pro Pro Val
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 Arg Tyr Tyr Phe Ser His Asp Thr Asp
 340 345

<210> 4333

<211> 1278

<212> DNA

<213> Homo sapiens

<400> 4333

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 300

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<210> 4334

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4334

Arg	Pro	Gln	Arg	Arg	Leu	Leu	Ser	Ala	Arg	Val	Asn	Arg	Ser	Gln	Ser
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Phe	Ala	Gly	Val	Leu	Gly	Ser	His	Glu	Arg	Gly	Pro	Arg	Ser	Phe	Pro
			20					25					30		
Val	Phe	Ser	Pro	Pro	Gly	Pro	Pro	Arg	Lys	Pro	Pro	Ala	Leu	Ser	Arg
		35				40						45			
Val	Ser	Arg	Met	Phe	Ser	Val	Ala	His	Pro	Ala	Ala	Lys	Val	Pro	Gln
	50				55						60				
Pro	Glu	Arg	Leu	Asp	Leu	Val	Tyr	Thr	Ala	Leu	Lys	Arg	Gly	Leu	Thr
65				70					75					80	
Ala	Tyr	Leu	Glu	Val	His	Gln	Gln	Glu	Gln	Glu	Lys	Leu	Gln	Gly	Gln
			85				90						95		
Ile	Arg	Glu	Ser	Lys	Arg	Asn	Ser	Arg	Leu	Gly	Phe	Leu	Tyr	Asp	Leu

	100		105		110										
Asp	Lys	Gln	Val	Lys	Ser	Ile	Glu	Arg	Phe	Leu	Arg	Arg	Leu	Glu	Phe
	115		120		125										
His	Ala	Ser	Lys	Ile	Asp	Glu	Leu	Tyr	Glu	Ala	Tyr	Cys	Val	Gln	Arg
	130		135		140										
Arg	Leu	Arg	Asp	Gly	Ala	Tyr	Asn	Met	Val	Arg	Ala	Tyr	Thr	Thr	Gly
145			150		155					160					
Ser	Pro	Gly	Ser	Arg	Glu	Ala	Arg	Asp	Ser	Leu	Ala	Glu	Ala	Thr	Arg
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Gly	His	Arg	Glu	Tyr	Thr	Glu	Val	Gly	Asp	Gly	Gly	Pro			
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<210> 4335

<211> 1211

<212> DNA

<213> Homo sapiens

<400> 4335

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120
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240
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300
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1080

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<210> 4336

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4336

Trp	Glu	Arg	Lys	Gly	Gln	Asp	Leu	Ala	Gly	Asp	Gly	Glu	Glu	Trp	Leu
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Pro	Pro	Leu	Lys	Thr	Phe	Val	Pro	Ser	Val	Ser	Pro	Phe	Gln	Leu	Ala
		20					25						30		
Leu	Gly	Ala	Ala	Leu	Val	Asn	Val	Gln	Ile	Pro	Leu	Leu	Leu	Gly	Gln
	35					40					45				
Leu	Val	Glu	Val	Val	Ala	Lys	Tyr	Thr	Arg	Asp	His	Val	Gly	Ser	Phe
	50					55				60					
Met	Thr	Glu	Ser	Gln	Asn	Leu	Ser	Thr	His	Leu	Leu	Ile	Leu	Tyr	Gly
65					70					75				80	
Val	Gln	Gly	Leu	Leu	Thr	Phe	Gly	Tyr	Leu	Val	Leu	Leu	Ser	His	Val
			85					90						95	
Gly	Glu	Arg	Met	Ala	Val	Asp	Met	Arg	Arg	Ala	Leu	Phe	Ser	Ser	Leu
			100					105						110	
Leu	Arg	Gln	Asp	Ile	Thr	Phe	Phe	Asp	Ala	Asn	Lys	Thr	Gly	Gln	Leu
		115						120					125		
Val	Ser	Arg	Leu	Thr	Thr	Asp	Val	Gln	Glu	Phe	Lys	Ser	Ser	Phe	Lys
	130					135					140				
Leu	Val	Ile	Ser	Gln	Gly	Leu	Arg	Ser	Cys	Thr	Gln	Val	Ala	Gly	Cys
145				150					155					160	
Leu	Val	Ser	Leu	Ser	Met	Leu	Ser	Thr	Arg	Leu	Thr	Leu	Leu	Leu	Met
			165					170						175	
Val	Ala	Thr	Pro	Ala	Leu	Met	Gly	Val	Gly	Thr	Leu	Met	Gly	Ser	Gly
		180						185					190		
Leu	Arg	Lys	Leu	Ser	Arg	Gln	Cys	Gln	Glu	Gln	Ile	Ala	Arg	Ala	Met
	195					200						205			
Gly	Val	Ala	Asp	Glu	Ala	Leu	Gly	Asn	Val	Arg	Thr	Val	Arg	Ala	Phe
	210					215					220				
Ala	Met	Glu	Gln	Arg	Glu	Glu	Arg	Tyr	Gly	Ala	Glu	Leu	Glu	Ala	
225				230					235					240	
Cys	Arg	Cys	Arg	Ala	Glu	Glu	Leu	Gly	Arg	Gly	Ile	Ala	Leu	Phe	Gln
			245					250						255	
Gly	Leu	Ser	Asn	Ile	Ala	Phe	Asn	Cys	Met	Val	Leu	Gly	Thr	Leu	Phe
		260					265						270		
Ile	Gly	Gly	Ser	Leu	Val	Ala	Gly	Gln	Gln	Leu	Thr	Gly	Gly	Asp	Leu
	275					280							285		
Met	Ser	Phe	Leu	Val	Ala	Ser	Gln	Thr	Val	Gln	Ser	Phe	Leu	Arg	Val
	290					295					300				
Ala	Pro	Cys	Pro	Asn	Ser	Leu	Pro	Leu	Gln	Ala	Val	Thr	Leu	His	Ala
305				310						315					320
Trp	Lys	Asp	His	Pro											

325

<210> 4337

<211> 461

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4338

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Ala	Ser	Ser	Ala	Pro	Gly	Asp	Pro	Ser	Leu	Gly	Val	Gly	Arg	Thr	Ser
			20				25						30		
Thr	Trp	Phe	Pro	Ser	Ser	Gly	Ala	His	Gly	Gly	Glu	Val	Glu	Gly	Gly
		35				40					45				
Arg	Arg	Glu	Gly	Ala	Thr	Cys	Cys	Ser	Val	Glu	Lys	Gln	Gln	Ser	Pro
	50					55				60					
Leu	Gln	Pro	Ala	Gln	Leu	Ala	Phe	Leu	Thr	Leu	Ser	Leu	Pro	Gly	Leu
65				70					75					80	
Cys	Gly	Arg	Glu	Gly	Gln	Ala	Arg	Trp	Pro	Ala	Arg	Asp	Val	Val	Phe
			85					90					95		
Ser	Phe	Val	Leu	Cys	Thr	Met	Pro	Gln	Lys	Asn	Ile	Leu	Leu	Ile	Cys
			100					105					110		
Asn	Gln	Asp	Asn	Ile	Ile										
			115												

<210> 4339

<211> 5269

<212> DNA

<213> Homo sapiens

<400> 4339

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<210> 4340

<211> 1088

<212> PRT

<213> Homo sapiens

<400> 4340

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 35 40 45
 Asn Ser Pro Phe Leu Asn Asn Val Glu Val Glu Gln Glu Ser Phe Phe
 50 55 60
 Glu Gly Lys Asn Met Ala Leu Phe Glu Glu Glu Met Asp Ser Asn Pro
 65 70 75 80
 Met Val Ser Ser Leu Leu Asn Lys Leu Ala Asn Tyr Thr Asn Leu Ser
 85 90 95
 Gln Gly Val Val Glu His Glu Glu Asp Glu Glu Ser Arg Arg Arg Glu
 100 105 110
 Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys
 115 120 125
 Leu Gln Asn Ile Leu Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Ile
 130 135 140
 Val Gly Val Ala Gly Val Leu Glu Ser Phe Leu Ile Val Ala Met Cys
 145 150 155 160
 Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr
 165 170 175
 Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser
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 Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly
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 Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu Gly Thr Ile Glu Ile Phe
 210 215 220
 Leu Thr Tyr Ile Ser Pro Gly Ala Ala Ile Phe Gln Ala Glu Ala Ala
 225 230 235 240
 Gly Gly Glu Ala Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr
 245 250 255
 Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr

3535

690 695 700
 Ala Val Lys His Pro Arg Leu Leu Ser Phe Thr Ser Gln Leu Lys Ala
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 Gly Lys Gly Leu Thr Ile Val Gly Ser Val Leu Glu Gly Thr Tyr Leu
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 Asp Lys His Met Glu Ala Gln Arg Ala Glu Glu Asn Ile Arg Ser Leu
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 Met Ser Thr Glu Lys Thr Lys Gly Phe Cys Gln Leu Val Val Ser Ser
 755 760 765
 Ser Leu Arg Asp Gly Met Ser His Leu Ile Gln Ser Ala Gly Leu Gly
 770 775 780
 Gly Leu Lys His Asn Thr Val Leu Met Ala Trp Pro Ala Ser Trp Lys
 785 790 795 800
 Gln Glu Asp Asn Pro Phe Ser Trp Lys Asn Phe Val Asp Thr Val Arg
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 Asp Thr Thr Ala Ala His Gln Ala Leu Leu Val Ala Lys Asn Val Asp
 820 825 830
 Ser Phe Pro Gln Asn Gln Glu Arg Phe Gly Gly Gly His Ile Asp Val
 835 840 845
 Trp Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu
 850 855 860
 Leu Arg Gln His Lys Val Trp Arg Lys Cys Arg Met Arg Ile Phe Thr
 865 870 875 880
 Val Ala Gln Val Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Gln
 885 890 895
 Met Phe Leu Tyr His Leu Arg Ile Ser Ala Glu Val Glu Val Val Glu
 900 905 910
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 945 950 955 960
 His Thr Ala Ala Ala Ala Arg Thr Gln Ala Pro Pro Thr Pro Asp Lys
 965 970 975
 Val Gln Met Thr Trp Thr Arg Glu Lys Leu Ile Ala Glu Lys Tyr Arg
 980 985 990
 Ser Arg Asp Thr Ser Leu Ser Gly Phe Lys Asp Leu Phe Ser Met Lys
 995 1000 1005
 Pro Glu Trp Gly Asn Leu Asp Gln Ser Asn Val Arg Arg Met His Thr
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 1045 1050 1055
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<210> 4341

<211> 693

<212> DNA

<213> Homo sapiens

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 180
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 300
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<210> 4342
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4342
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 20 25 30
 Lys Glu Gly Leu Val Ser Val Gly Ile Thr Gln Lys Arg Ala Leu Tyr
 35 40 45
 Met Phe Ser Tyr Lys Tyr Ser Val Met Glu Lys His Ser Leu Asp Ala
 50 55 60
 Tyr Gly Ser Leu Arg Ser Phe Phe Phe His Pro Leu Phe Leu Glu Lys
 65 70 75 80
 Lys Phe Phe Lys Ala Tyr Asn Leu Lys Ser Thr Ser Thr Tyr Ser Arg
 85 90 95
 Asn Ile Val Ala Phe Ser Ile
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<210> 4343
 <211> 499
 <212> DNA
 <213> Homo sapiens

<400> 4343

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 360
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<210> 4344

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4344

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Arg	Val	Val	Arg	Gly	Arg	Gly	Pro	Phe	Ala	Phe	Arg	Thr	Gly	Arg	Pro
			20					25					30		
Thr	Leu	Gly	Ala	Trp	Thr	Glu	Ser	Gly	Gly	Arg	Ala	Ala	Gly	Pro	
		35					40					45			
Gly	Gly	Glu	Arg	Arg	Thr	Asp	Phe	Arg	Gly	Gly	Pro	Gly	His	Ala	Ala
	50					55					60				
Glu	Thr	Thr	Arg	Leu	Pro	Gly	Gly	Gly	Gln	Asp	Arg	Pro	Cys	Pro	Asp
65					70					75				80	
Lys	Met	Glu	Phe	Pro	Val	Trp	Leu	Gln	Leu	Ala	Ala	Arg	Ser	Gln	Ser
				85				90					95		
Ser	Ser	Val	Ile	Arg	Leu	Ser	Asp	Cys	Ser	Pro	Phe	Ile	Ser	Phe	Ala
			100				105					110			
Val	Val	Gln	Ile	Leu	Ile										
			115												

<210> 4345

<211> 349

<212> DNA

<213> Homo sapiens

<400> 4345

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 120
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 180

ctgaggagtg ggctgncgcg cacggccatc tccgagctcc acgggaacat gtacattgaa
 240
 ggagtacgtg cgggtgttcg atgtgacgga gcgcactgcc ctccacagac accagacagg
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 349

<210> 4346
 <211> 116
 <212> PRT
 <213> Homo sapiens

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 20 25 30
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 35 40 45
 Gln His Val Val Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly
 50 55 60
 Leu Xaa Arg Thr Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu
 65 70 75 80
 Gly Val Arg Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln
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 His His Cys Ala
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<210> 4347
 <211> 353
 <212> DNA
 <213> Homo sapiens

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 120
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 240
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 353

<210> 4348
 <211> 72
 <212> PRT
 <213> Homo sapiens

<400> 4348

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 Arg Gln Cys Arg Gly Arg Ser Arg Arg Val Ala Arg Ser Ser Leu
 35 40 45
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 Gly Ser Ala Gly Cys Pro Gly Leu
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<210> 4349

<211> 2040

<212> DNA

<213> Homo sapiens

<400> 4349

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 1080

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<210> 4350

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4350

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Ile	Arg	Thr	Gln	His	Gly	Pro	His	Gly	Gly	Gln	Val	Ala	Gly	Gly	Pro
			20					25					30		
Phe	Pro	Pro	Leu	Ala	His	Ala	Pro	Leu	Thr	Gly	Thr	Arg	Pro	Ser	Cys
		35				40						45			
Gly	Pro	Arg	Leu	Trp	His	Gly	Thr	Cys	Pro	Ser	Ala	Gln	His	Gly	Pro
	50				55					60					
Gly	Ala	Thr	Leu	Leu	Ala	Glu	Gly	Gln	Gly	Pro	Leu	Cys	Arg	Gln	Trp
65				70				75						80	
Gly	Gly	Gly	Pro	Arg	Phe	Pro	Asp	Arg	Gly	Arg	Gln	Gly	Thr	Gly	Glu
			85					90					95		
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<210> 4351
<211> 4703
<212> DNA
<213> Homo sapiens

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180
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 <212> PRT
 <213> Homo sapiens

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<211> 586

<212> PRT

<213> Homo sapiens

<400> 4354

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Gln	Tyr	Ile	Ser	Ser	Val	Pro	Trp	Tyr	Ile	Asp	Pro	Ser	Lys	Arg	Pro
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<211> 1741

<212> DNA

<213> Homo sapiens

<400> 4355

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<212> PRT

<213> Homo sapiens

<400> 4356

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Gln Lys Tyr Ile Ala Glu Ser Lys Cys Leu Val Ile Glu Lys Asn Gly			
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Lys Leu Arg Tyr Glu Ile Asp Thr Gly Glu Glu Thr Lys Phe Val Asn			
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Pro Glu Asp Val Ala Arg Leu Ile Phe Ser Lys Met Lys Glu Thr Ala			
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His Ser Val Leu Gly Ser Asp Ala Asn Asp Val Val Ile Thr Val Pro			
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Phe Asp Phe Gly Glu Lys Gln Lys Asn Ala Leu Gly Glu Ala Ala Arg			
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Ala Ala Gly Phe Asn Val Leu Arg Leu Ile His Glu Pro Ser Ala Ala			
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Leu Leu Ala Tyr Gly Ile Gly Gln Asp Ser Pro Thr Gly Lys Ser Asn			
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Ala Met Met Lys Leu Thr Asn Ser Ala Glu Val Ala Lys His Ser Leu			
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Ser Thr Leu Gly Ser Ala Asn Cys Phe Leu Asp Ser Leu Tyr Glu Gly			
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Leu Val Glu Asp Ser Leu Met Ile Glu Cys Ser Ala Arg Asp Ile Leu			
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Val Lys Gly Val Asp Glu Ser Gly Ala Ser Arg Phe Thr Val Leu Phe			
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Pro Gly Ser Ile Ser Ser Val Cys Leu Glu Leu Tyr Glu Ser Asp Gly			

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<211> 421

<212> DNA

<213> Homo sapiens

<400> 4357

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 4358

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<212> DNA

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<210> 4360

<211> 670

<212> PRT

<213> Homo sapiens

<400> 4360

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Thr	Leu	Ala	Tyr	Ser	Pro	Arg	Asp	Glu	Glu	Asp	Ser	Met	Pro	Pro	Ile
65					70					75					80
Ser	Thr	Pro	Arg	Arg	Ser	Asp	Ser	Ala	Ile	Ser	Val	Arg	Ser	Leu	His
			85						90					95	
Ser	Glu	Ser	Ser	Met	Ser	Leu	Arg	Ser	Thr	Phe	Ser	Leu	Pro	Glu	Glu
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Glu	Glu	Glu	Pro	Glu	Pro	Leu	Val	Phe	Ala	Glu	Gln	Pro	Ser	Val	Lys
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Leu	Cys	Cys	Gln	Leu	Cys	Cys	Ser	Val	Phe	Lys	Asp	Pro	Val	Ile	Thr
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Thr	Cys	Gly	His	Thr	Phe	Cys	Arg	Arg	Cys	Ala	Leu	Lys	Ser	Glu	Lys
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Cys	Pro	Val	Asp	Asn	Val	Lys	Leu	Thr	Val	Val	Val	Asn	Asn	Ile	Ala
			165						170					175	
Val	Ala	Glu	Gln	Ile	Gly	Glu	Leu	Phe	Ile	His	Cys	Arg	His	Gly	Cys

3555

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Leu Arg Val Trp Ser Met Asp Asn Met Ile Cys Thr Gln Thr Leu Leu
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Arg His Gln Gly Ser Val Thr Ala Leu Ala Val Ser Arg Gly Arg Leu
      645              650              655
Phe Ser Gly Ala Val Asp Ser Thr Val Lys Val Trp Thr Cys
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<210> 4361
 <211> 574
 <212> DNA
 <213> Homo sapiens

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<400> 4361
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240
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420
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480
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574

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<210> 4362
 <211> 116
 <212> PRT
 <213> Homo sapiens

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<400> 4362
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Gly Asn Leu Leu Val Thr Gly Ala Ala Asp Gly Val Ile Arg Leu Phe
20      25      30
Asp Met Gln Gln His Glu Cys Ala Met Ser Trp Arg Ala His Tyr Gly
35      40      45
Glu Val Tyr Ser Val Glu Phe Ser Tyr Asp Glu Asn Thr Val Tyr Ser
50      55      60
Ile Gly Glu Asp Gly Lys Val Gly Gly Ser Arg Ile Gln Ile Arg Glu
65      70      75      80
His Arg Asp Asp Met Trp Ala Gly Cys Arg Leu Trp Pro Tyr Leu Leu
85      90      95
Leu Ala Leu Gln Pro Gly Ala Ser Phe Cys Ser Phe Val Ile Cys Arg

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100
 Ile Gly Ile Asn
 115

105
 110

<210> 4363
 <211> 1222
 <212> DNA
 <213> Homo sapiens

<400> 4363
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 agctatgacc ccaggggccag ggaattcagt cccaccaga ccctgtcatt ccatcactag
 180
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 300
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<210> 4364

<211> 75
 <212> PRT
 <213> Homo sapiens

<400> 4364
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 20 25 30
 Phe Arg Gly Gln Leu Val Gln Pro Ala Gly Ser Val Gln Ile Pro Asp
 35 40 45
 Asn His Ser Ser Thr Arg Ala Gln Arg Pro Gly Pro Gly Gly Arg Ser
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 Ser Ala Cys Val Pro Thr Ser Thr Ser Met Arg
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<210> 4365
 <211> 469
 <212> DNA
 <213> Homo sapiens

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<210> 4366
 <211> 156
 <212> PRT
 <213> Homo sapiens

<400> 4366
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 20 25 30
 Asp Lys Gly Ser Gln Val Glu Ile Val Thr Asp Asp Ile Lys Pro Gly
 35 40 45
 Val Ala Ile Gly Gly Thr Ser Phe Pro Thr Tyr Tyr Arg Ser Met Tyr
 50 55 60
 Pro Lys Glu Val Ile Met Thr Gly Asp Met Met Leu Glu Lys Val Tyr

65		70		75		80									
Arg	Glu	Gly	Asp	Lys	Leu	Val	Ala	Val	Leu	Glu	Asn	Glu	Tyr	Thr	Gly
				85					90					95	
Ala	Lys	Glu	Glu	Arg	Val	Val	Asp	Gln	Val	Val	Val	Glu	Asn	Gly	Val
				100					105					110	
Arg	Pro	Asp	Glu	Glu	Ile	Tyr	Tyr	Gly	Leu	Lys	Glu	Gly	Ser	Arg	Asn
				115					120					125	
Lys	Gly	Gln	Ile	Asp	Val	Glu	Ala	Leu	Phe	Ala	Ile	Lys	Pro	Gln	Pro
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Ser	Leu	Asn	Thr	Leu	Asn	Glu	Ala	Ala	Gly	Asp					
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<210> 4367

<211> 852

<212> DNA

<213> Homo sapiens

<400> 4367

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<210> 4368

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4368

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 20 25 30
 Phe Glu Glu Thr Leu Asn Ile Leu Ile Tyr Glu Thr Pro Arg Gly Pro
 35 40 45
 Asp Pro Ala Leu Leu Glu Ala Thr Gly Gly Ala Ala Gly Ala Gly Gly
 50 55 60
 Ala Gly Arg Gly Glu Asp Glu Glu Asn Arg Glu His Arg Val Arg Arg
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 Ile His Val Arg Arg His Ile Thr His Asp Glu Arg Pro His Gly Gln
 85 90 95
 Gln Ile Val Phe Lys Asp
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<210> 4369

<211> 1264

<212> DNA

<213> Homo sapiens

<400> 4369

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<210> 4370

<211> 322

<212> PRT

<213> Homo sapiens

<400> 4370

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			20					25					30		
Trp	Ala	Phe	Lys	Met	Asp	Tyr	Glu	Thr	Thr	Glu	Lys	Glu	Val	Ala	Glu
		35					40					45			
Pro	Leu	Leu	Asp	Leu	Lys	Glu	Gly	Ile	Asp	Gln	Leu	Glu	Asn	Asn	Lys
	50					55					60				
Thr	Leu	Gly	Phe	Ile	Leu	Ser	Thr	Leu	Leu	Ala	Ile	Gly	Asn	Phe	Leu
65					70					75					80
Asn	Gly	Thr	Asn	Ala	Lys	Ala	Phe	Glu	Leu	Ser	Tyr	Leu	Glu	Lys	Val
			85						90					95	
Pro	Glu	Val	Lys	Asp	Thr	Val	His	Lys	Gln	Ser	Leu	Leu	His	His	Val
		100						105					110		
Cys	Thr	Met	Val	Val	Glu	Asn	Phe	Pro	Asp	Ser	Ser	Asp	Leu	Tyr	Ser
		115					120					125			
Glu	Ile	Gly	Ala	Ile	Thr	Arg	Ser	Ala	Lys	Val	Asp	Phe	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Asn	Leu	Cys	Gln	Met	Glu	Arg	Arg	Cys	Lys	Ala	Ser	Trp	Asp
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His	Leu	Lys	Ala	Ile	Ala	Lys	His	Glu	Met	Lys	Pro	Val	Leu	Lys	Gln
			165						170					175	
Arg	Met	Ser	Glu	Phe	Leu	Lys	Asp	Cys	Ala	Glu	Arg	Ile	Ile	Ile	Leu
		180						185					190		
Lys	Ile	Val	His	Arg	Arg	Ile	Ile	Asn	Arg	Phe	His	Ser	Phe	Leu	Leu
	195					200						205			
Phe	Met	Gly	His	Pro	Pro	Tyr	Ala	Ile	Arg	Glu	Val	Asn	Ile	Asn	Lys
	210					215						220			
Phe	Cys	Arg	Ile	Ile	Ser	Glu	Phe	Ala	Leu	Glu	Tyr	Arg	Thr	Thr	Arg
225				230						235					240
Glu	Arg	Val	Leu	Gln	Gln	Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg
			245					250					255		
Asn	Lys	Thr	Arg	Gly	Lys	Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly
		260						265					270		
Ser	Ser	Pro	Ala	Pro	Pro	Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Glu

	275		280		285										
Asp	Ala	Ala	Glu	His	Glu	Asn	Met	Lys	Ala	Val	Leu	Lys	Thr	Ser	Ser
	290				295					300					
Pro	Ser	Arg	Ser	Pro	Leu	His	Ile	Pro	Ser	Pro	Ser	Cys	Gln	Leu	Cys
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Phe	Ser														

<210> 4371

<211> 907

<212> DNA

<213> Homo sapiens

<400> 4371

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<210> 4372

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4372

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Asn Leu Glu Asn Ala Lys Arg Phe Ala Ile Asp Ile Gly Gly Ser Leu
      35           40           45
Thr Lys Leu Ala Tyr Tyr Ser Thr Val Gln His Lys Val Ala Lys Val
      50           55           60
Arg Ser Phe Asp His Ser Gly Lys Asp Thr Glu Arg Glu His Glu Pro
      65           70           75           80
Pro Tyr Glu Ile Ser Val Gln Glu Glu Ile Thr Ala Arg Leu His Phe
      85           90           95
Ile Lys Phe Glu Asn Thr Tyr Ile Glu Ala Cys Leu Asp Phe Ile Lys
      100          105          110
Asp His Leu Val Asn Thr Glu Thr Lys Val Ile Gln Ala Thr Gly Gly
      115          120          125
Gly Ala Tyr Lys Phe Lys Asp Leu Ile Glu Glu Lys Leu Arg Leu Lys
      130          135          140
Val Asp Lys Glu Asp Val Met Thr Cys Leu Ile Lys Gly Cys Asn Phe
      145          150          155          160
Val Leu Lys Asn Ile Pro His Glu Ala Phe Val Tyr Gln Lys Asp Ser
      165          170          175
Asp Pro Glu Phe Arg Phe Gln Thr Asn His Pro His Ile Phe Pro Tyr
      180          185          190
Leu Leu Val Asn Ile Gly Ser Gly Val Ser Ile Val Lys Val Glu Thr
      195          200          205
Glu Asp Arg Phe Glu Trp Val Gly Gly Ser Ser Ile Gly Gly Gly Thr
      210          215          220
Phe Trp Gly Leu Gly Ala Leu Leu Thr Lys Thr Lys Lys Phe Asp Glu
      225          230          235          240
Leu Leu His Leu Ala Ser Arg Gly Gln His Ser Asn Val Asp Met Leu
      245          250          255
Val Arg Asp Val Tyr Gly Gly Ala His Gln Thr Leu Gly Leu Ser Gly
      260          265          270
Asn Leu Ile Ala Ser Ser Phe Gly Lys Ser Ala Thr Ala Asp Gln Glu
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Phe Ser Lys Glu Asp Met Ala Lys Ser Leu Leu His Met Ile
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<210> 4373

<211> 1017

<212> DNA

<213> Homo sapiens

<400> 4373

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240
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300

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<210> 4374

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4374

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 Gly Leu Ile Ala Pro Gly Pro Thr Thr Ala Val Ser Tyr Met Ser Val
 35 40 45
 Lys Cys Val Asp Ala Arg Lys Asn His His Lys Thr Lys Trp Phe Val
 50 55 60
 Pro Trp Gly Pro Asn His Cys Asp Lys Ile Arg Asp Ile Glu Glu Ala
 65 70 75 80
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 85 90 95
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 Ile Leu Gln Leu Asp Ile Ala Phe Lys Leu Asn Asn Gln Ile Arg Glu
 115 120 125
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1080

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<210> 4376

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4376

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		20						25					30		
Val	Pro	His	Ser	Ser	Ser	Thr	Phe	Arg	Leu	Thr	Ala	Ser	Phe	Gly	Arg
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Ala	Gly	Pro	Gly	Met	Leu	His	Thr	Thr	Gln	Leu	Tyr	Gln	His	Val	Pro
	50					55					60				
Glu	Thr	Arg	Trp	Pro	Ile	Val	Tyr	Ser	Pro	Arg	Tyr	Asn	Ile	Thr	Phe
65					70				75					80	
Met	Gly	Leu	Glu	Lys	Leu	His	Pro	Phe	Asp	Ala	Gly	Lys	Trp	Gly	Lys
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Val	Ile	Asn	Phe	Leu	Lys	Glu	Glu	Lys	Leu	Leu	Ser	Asp	Ser	Met	Leu
		100						105					110		
Val	Glu	Ala	Arg	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Leu	Val	Val	His	Thr
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      165              170              175
Gly Lys Leu Ala Val Glu Arg Gly Trp Ala Ile Asn Val Gly Gly Gly
      180              185              190
Phe His His Cys Ser Ser Asp Arg Gly Gly Gly Phe Cys Ala Tyr Ala
      195              200              205
Asp Ile Thr Leu Ala Ile Lys Phe Leu Phe Glu Arg Val Glu Gly Ile
      210              215              220
Ser Arg Ala Thr Ile Ile Asp Leu Asp Ala His Gln Gly Asn Gly His
225              230              235              240
Glu Arg Asp Phe Met Asp Asp Lys Cys Val Thr Cys Met Asp Val Tyr
      245              250              255
Asn Arg His Ile Tyr Pro Gly Asp Arg Phe Ala Lys Gln Ala Ile Arg
      260              265              270
Arg Lys Val Glu Leu Glu Trp Gly Thr Glu Asp Asp Glu Tyr Leu Asp
      275              280              285
Lys Val Glu Arg Asn Ile Lys Lys Ser Leu Gln Glu His Leu Pro Asp
      290              295              300
Val Val Val Tyr Asn Ala Gly Thr Asp Ile Leu Glu Gly Asp Arg Leu
305              310              315              320
Gly Gly Leu Ser Ile Ser Pro Ala Gly Ile Val Lys Arg Asp Glu Leu
      325              330              335
Val Phe Arg Met Val Arg Gly Arg Arg Val Pro Ile Leu Met Val Thr
      340              345              350
Ser Gly Gly Tyr Gln Lys Arg Thr Ala Arg Ile Ile Ala Asp Ser Ile
      355              360              365
Leu Asn Leu Phe Gly Leu Gly Leu Ile Gly Pro Glu Ser Pro Ser Val
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<210> 4377

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4377

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420

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<210> 4378

<211> 233

<212> PRT

<213> Homo sapiens

<400> 4378

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		20						25					30		
Ser	Met	Arg	Glu	His	Pro	Ala	Leu	Arg	Ser	Leu	Arg	Leu	Leu	Thr	Leu
		35					40					45			
Glu	Gln	Pro	Gln	Gly	Asp	Ser	Met	Met	Thr	Cys	Glu	Gln	Ala	Gln	Leu
	50					55					60				
Leu	Ala	Asn	Leu	Ala	Arg	Leu	Ile	Gln	Ala	Lys	Lys	Ala	Leu	Asp	Leu
65					70				75					80	
Gly	Thr	Phe	Thr	Gly	Tyr	Ser	Ala	Leu	Ala	Leu	Ala	Leu	Ala	Leu	Pro
			85					90						95	
Ala	Asp	Gly	Arg	Val	Val	Thr	Cys	Glu	Val	Asp	Ala	Gln	Pro	Pro	Glu
		100						105					110		
Leu	Gly	Arg	Pro	Leu	Trp	Arg	Gln	Ala	Glu	Ala	Glu	His	Lys	Ile	Arg
	115					120						125			
Leu	Arg	Leu	Lys	Pro	Ala	Leu	Glu	Thr	Leu	Asp	Glu	Leu	Leu	Ala	Ala
	130					135					140				
Gly	Glu	Ala	Gly	Thr	Phe	Asp	Val	Ala	Val	Val	Asp	Ala	Asp	Lys	Glu
145					150					155				160	
Asn	Cys	Ser	Ala	Tyr	Tyr	Glu	Arg	Cys	Leu	Gln	Leu	Leu	Arg	Pro	Gly
			165					170						175	
Gly	Ile	Leu	Ala	Val	Leu	Arg	Val	Leu	Trp	Arg	Gly	Lys	Val	Leu	Gln
	180							185					190		
Pro	Pro	Lys	Gly	Asp	Val	Ala	Ala	Glu	Cys	Val	Arg	Asn	Leu	Asn	Glu
	195					200						205			
Arg	Ile	Arg	Arg	Asp	Val	Arg	Val	Tyr	Ile	Ser	Leu	Leu	Pro	Leu	Gly
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<210> 4379

<211> 2347

<212> DNA

<213> Homo sapiens

<400> 4379

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<211> 652

<212> PRT

<213> Homo sapiens

<400> 4380

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		20						25					30		
Arg	Gly	Ala	Leu	Arg	Thr	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Gly	Leu	Trp
		35					40					45			
Ala	Gln	Thr	Ser	Val	Leu	His	Arg	Glu	Asp	Leu	Glu	Arg	Leu	Gly	Val
		50				55				60					
Gln	Glu	Ser	Asp	Leu	Arg	Leu	Phe	Leu	Asp	Gly	Asp	Ile	Leu	Arg	Gln
65			70						75				80		
Asp	Arg	Val	Ser	Lys	Gly	Cys	Tyr	Ser	Phe	Ile	His	Leu	Ser	Phe	Gln
		85						90					95		
Gln	Phe	Leu	Thr	Ala	Leu	Phe	Tyr	Thr	Leu	Glu	Lys	Glu	Glu	Glu	Glu
		100						105				110			
Asp	Arg	Asp	Gly	His	Thr	Trp	Asp	Ile	Gly	Asp	Val	Gln	Lys	Leu	Leu
		115					120					125			
Ser	Gly	Val	Glu	Arg	Leu	Arg	Asn	Pro	Asp	Leu	Ile	Gln	Ala	Gly	Tyr

3571

3572

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<211> 325

<212> PRT

<213> Homo sapiens

<400> 4382

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			20					25					30		
Gln	Arg	Ile	Ala	Glu	Glu	Thr	Ile	Leu	Lys	Ser	Gln	Val	Asp	Lys	Arg
		35					40					45			
Phe	Ser	Ala	His	Tyr	Asp	Ala	Val	Glu	Ala	Glu	Leu	Lys	Ser	Ser	Ala
	50					55					60				
Val	Gly	Leu	Val	Thr	Leu	Asn	Asp	Met	Lys	Ala	Arg	Gln	Glu	Ala	Leu
65					70					75				80	
Val	Arg	Glu	Arg	Glu	Arg	Gln	Leu	Ala	Lys	Arg	Gln	His	Leu	Glu	Glu
			85						90				95		
Gln	Arg	Leu	Gln	Gln	Glu	Arg	Gln	Arg	Glu	Gln	Glu	Gln	Arg	Arg	Glu
		100						105					110		
Arg	Lys	Arg	Lys	Ile	Ser	Cys	Leu	Ser	Phe	Ala	Leu	Asp	Asp	Leu	Asp
		115					120					125			
Asp	Gln	Ala	Asp	Ala	Ala	Glu	Ala	Arg	Arg	Ala	Gly	Asn	Leu	Gly	Lys
	130					135					140				
Asn	Pro	Asp	Val	Asp	Thr	Ser	Phe	Leu	Pro	Asp	Arg	Asp	Arg	Glu	Glu
145				150						155				160	
Glu	Glu	Asn	Arg	Leu	Arg	Glu	Glu	Leu	Arg	Gln	Glu	Trp	Glu	Ala	Gln
			165					170					175		
Arg	Glu	Lys	Val	Lys	Asp	Glu	Glu	Met	Glu	Val	Thr	Phe	Ser	Tyr	Trp
		180						185				190			
Asp	Gly	Ser	Gly	His	Arg	Arg	Thr	Val	Arg	Val	Arg	Lys	Gly	Asn	Thr
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Val	Gln	Gln	Phe	Leu	Lys	Lys	Ala	Leu	Gln	Gly	Leu	Arg	Lys	Asp	Phe

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Asp Leu Ile Leu Pro His Tyr His Thr Phe Tyr Asp Phe Ile Ile Ala
      245              250              255
Arg Ala Arg Gly Lys Ser Gly Pro Leu Phe Ser Phe Asp Val His Asp
      260              265              270
Asp Val Arg Leu Leu Ser Asp Ala Thr Met Glu Lys Asp Glu Ser His
      275              280              285
Ala Gly Lys Val Val Leu Arg Ser Trp Tyr Glu Lys Asn Lys His Ile
      290              295              300
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305              310              315              320
Lys Tyr Thr Ile Arg
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<210> 4383
 <211> 419
 <212> DNA
 <213> Homo sapiens

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<400> 4383
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120
aaggagtccc agtatatcaa gtatctctgc tgtgatgaca caagaaccct taaccagtgg
180
gtcatgggaa tacggatagc caagtatggg aagactctct atgataacta ccagcgggct
240
gtggcaaagg ctggacttgc ctctcggtgg acaaacttgg ggacagtcaa tgcagctgca
300
ccagctcagc catttacagg acctaaaaca ggcaccaccc agcccaatgg acagattccc
360
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419

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<210> 4384
 <211> 139
 <212> PRT
 <213> Homo sapiens

```

<400> 4384
Arg Asp Leu Ala Cys Phe Ile Gln Phe Glu Asn Val Asn Ile Tyr Tyr
1      5      10      15
Gly Thr Gln His Lys Met Lys Tyr Lys Ala Pro Thr Asp Tyr Cys Phe
20      25      30
Val Leu Lys His Pro Gln Ile Gln Lys Glu Ser Gln Tyr Ile Lys Tyr
35      40      45
Leu Cys Cys Asp Asp Thr Arg Thr Leu Asn Gln Trp Val Met Gly Ile
50      55      60
Arg Ile Ala Lys Tyr Gly Lys Thr Leu Tyr Asp Asn Tyr Gln Arg Ala
65      70      75      80
Val Ala Lys Ala Gly Leu Ala Ser Arg Trp Thr Asn Leu Gly Thr Val

```

```

      85              90              95
Asn Ala Ala Ala Pro Ala Gln Pro Phe Thr Gly Pro Lys Thr Gly Thr
      100              105              110
Thr Gln Pro Asn Gly Gln Ile Pro Gln Ala Thr His Phe Phe Ser Ala
      115              120              125
Val Leu Gln Glu Ala Gln Arg His Ala Glu Asn
      130              135

```

<210> 4385
 <211> 754
 <212> DNA
 <213> Homo sapiens

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<400> 4385
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120
ggctcctggtc agagtcggag tcagagtcctc aggaggggag tggagggctc aggcactggt
180
gcccttctgtg gcctcttagg ctcgaggcct tgggacaggc ccccgagcac aaagtgaggc
240
tgtctatgga gttctgcagc acgtgcacag cagaccatat atcactcagt tccttctgga
300
ggtcacacctt ccagcagcca ctggctccct gcggtatctc ttcagtctcc ggacaggcgg
360
ctgtctcatg accctgctgc ttcactcttg tcaggatttt ggggcatttc acctgcgttt
420
tctgcatttt ctgaatgttc accaagttct ctgagatctc atcctcctgc gcttcttcaa
480
gctgctgaat cttgatttgc tgcaagcagc tctccttctc caacatggtc actgagtggg
540
tcaggaactc gaaagccttg gtctgggcct gtaactggct cttgagtgc ccaagttcac
600
atcgaggag cttctgggag tcgggaatca tcacaatggc cttggctttg actttggaag
660
agctgggtctc caagggttc acataccacc tgttcatgct ctcccatcag ggaccacgaa
720
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754

```

<210> 4386
 <211> 85
 <212> PRT
 <213> Homo sapiens

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<400> 4386
Gly Cys Leu Trp Ser Ser Ala Ala Arg Ala Gln Gln Thr Ile Tyr His
1      5      10      15
Ser Val Pro Ser Gly Gly His Pro Ser Ser Ser His Trp Leu Pro Ala
20      25      30
Val Ser Leu Gln Ser Pro Asp Arg Arg Leu Ser His Asp Pro Ala Ala
35      40      45
Ser Ser Trp Ser Gly Phe Cys Gly Ile Ser Pro Ala Phe Ser Ala Phe

```

<400> 4389

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120
ccagcgggtg acggcgattc tgcccgtgag aaggcattgc gtggagctct gcgagcctcc
180
gtggaacgac gcctgagtcg ccacgacgtc gtcacctgg actcgcttaa ctacatcaaa
240
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300
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360
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420
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540
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600
cccgaactcc tggaggccct aacgctgcgc tttgaggctc ccgattctcg gaatcgctgg
660
gaccggcctt tattcacttt ggtgggcata gaggagccgt tgcccccggc ggggatccgc
720
tctgccctgt ttgagaaccg ggccccacca ccccatcagt ctacgcagtc ccagcccctc
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900
cacttgccgt ttacccggcc cttgaccatg gcagaactga gtcgccttcg togccagttt
960
atttcgtaca ctaaaatgca tcccaacaat gagaacttgc cgcaactggc caacatgttt
1020
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1080
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1140
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1200
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1620

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 1895

<210> 4390

<211> 335

<212> PRT

<213> Homo sapiens

<400> 4390

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		20						25					30		
Ser	Ala	Arg	Glu	Lys	Ala	Leu	Arg	Gly	Ala	Leu	Arg	Ala	Ser	Val	Glu
		35				40					45				
Arg	Arg	Leu	Ser	Arg	His	Asp	Val	Val	Ile	Leu	Asp	Ser	Leu	Asn	Tyr
		50			55						60				
Ile	Lys	Gly	Phe	Arg	Tyr	Glu	Leu	Tyr	Cys	Leu	Ala	Arg	Ala	Ala	Arg
65				70					75					80	
Thr	Pro	Leu	Cys	Leu	Val	Tyr	Cys	Val	Arg	Pro	Gly	Gly	Pro	Ile	Ala
			85					90						95	
Gly	Pro	Gln	Val	Ala	Gly	Ala	Asn	Glu	Asn	Pro	Gly	Arg	Asn	Val	Ser
		100					105						110		
Val	Ser	Trp	Arg	Pro	Arg	Ala	Glu	Glu	Asp	Gly	Arg	Ala	Gln	Ala	Ala
		115				120						125			
Gly	Ser	Ser	Val	Leu	Arg	Glu	Leu	His	Thr	Ala	Asp	Ser	Val	Val	Asn
		130				135					140				
Gly	Ser	Ala	Gln	Ala	Asp	Val	Pro	Lys	Glu	Leu	Glu	Arg	Glu	Glu	Ser
145				150					155					160	
Gly	Ala	Ala	Glu	Ser	Pro	Ala	Leu	Val	Thr	Pro	Asp	Ser	Glu	Lys	Ser
			165					170						175	
Ala	Lys	His	Gly	Ser	Gly	Ala	Phe	Tyr	Ser	Pro	Glu	Leu	Leu	Glu	Ala
		180					185						190		
Leu	Thr	Leu	Arg	Phe	Glu	Ala	Pro	Asp	Ser	Arg	Asn	Arg	Trp	Asp	Arg
		195				200						205			
Pro	Leu	Phe	Thr	Leu	Val	Gly	Ile	Glu	Glu	Pro	Leu	Pro	Pro	Ala	Gly
		210				215						220			
Ile	Arg	Ser	Ala	Leu	Phe	Glu	Asn	Arg	Ala	Pro	Pro	Pro	His	Gln	Ser
225				230					235					240	
Thr	Gln	Ser	Gln	Pro	Leu	Ala	Ser	Gly	Ser	Phe	Leu	His	Gln	Leu	Asp
			245					250						255	
Gln	Val	Thr	Ser	Gln	Val	Leu	Ala	Gly	Leu	Met	Glu	Ala	Gln	Lys	Ser
		260						265					270		
Ala	Val	Pro	Gly	Asp	Leu	Leu	Thr	Leu	Pro	Gly	Thr	Thr	Glu	His	Leu
		275					280						285		
Arg	Phe	Thr	Arg	Pro	Leu	Thr	Met	Ala	Glu	Leu	Ser	Arg	Leu	Arg	Arg

290		295		300
Gln Phe Ile Ser Tyr Thr Lys Met His Pro Asn Asn Glu Asn Leu Pro				
305		310	315	320
Gln Leu Ala Asn Met Phe Leu Gln Tyr Leu Ser Gln Ser Leu His				
	325		330	335

<210> 4391

<211> 988

<212> DNA

<213> Homo sapiens

<400> 4391

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240
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600
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660
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720
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780
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<210> 4392

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4392

Xaa Pro Phe Ser Trp Pro His Gly Ala Ser Pro Arg Ala Gln Gly His

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Pro Ser Met Gly Gly Pro Met Gln Arg Val Thr Pro Pro Arg Gly Met
      20           25           30
Ala Ser Val Gly Pro Gln Ser Tyr Gly Gly Gly Met Arg Pro Pro Pro
      35           40           45
Asn Ser Leu Ala Gly Pro Gly Leu Pro Ala Met Asn Met Gly Pro Gly
      50           55           60
Val Arg Gly Pro Trp Ala Ser Pro Ser Gly Asn Ser Ile Pro Tyr Ser
      65           70           75           80
Ser Ser Ser Pro Gly Ser Tyr Thr Gly Pro Pro Gly Gly Gly Gly Pro
      85           90           95
Pro Gly Thr Pro Ile Met Pro Ser Pro Gly Asp Ser Thr Asn Ser Ser
      100          105          110
Glu Asn Met Tyr Thr Ile Met Asn Pro Ile Gly Gln Gly Ala Gly Arg
      115          120          125
Ala Asn Phe Pro Leu Gly Pro Gly Pro Glu Gly Pro Met Ala Ala Met
      130          135          140
Ser Ala Met Glu Pro His Val Asn Gly Ser Leu Gly Ser Gly Asp
      145          150          155          160
Met Asp Gly Leu Pro Lys Ser Ser Pro Gly Ala Val Ala Gly Leu Ser
      165          170          175
Asn Ala Pro Gly Thr Pro Arg Asp Asp Gly Glu Met Ala Ala Ala Gly
      180          185          190
Thr Phe Leu His Pro Phe Pro Ser Glu Ser Tyr Ser Pro Gly Met Thr
      195          200          205
Met Ser Val
      210

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<210> 4393

<211> 2171

<212> DNA

<213> Homo sapiens

<400> 4393

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120
gtggccccggg agcaggtgga cccggagcgg agctccccctg ccctgggcgt ggcggggccgc
180
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240
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420
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480
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540
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600

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720
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780
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2160
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2171

<210> 4394
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 4394

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Met Ala Thr Glu Gln Arg Pro Phe His Leu Val Val Phe Gly Ala Ser
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Gly Phe Thr Gly Gln Phe Val Thr Glu Glu Val Ala Arg Glu Gln Val
 20           25           30
Asp Pro Glu Arg Ser Ser Pro Ala Leu Gly Val Ala Gly Arg Ser Arg
 35           40           45
Glu Lys Leu Gln Arg Val Leu Glu Lys Ala Ala Leu Lys Leu Gly Arg
 50           55           60
Pro Thr Leu Ser Ser Glu Val Gly Ile Ile Ile Cys Asp Ile Ala Asn
 65           70           75           80
Pro Ala Ser Leu Asp Glu Met Ala Lys Gln Ala Thr Val Val Leu Asn
 85           90           95
Cys Val Gly Pro Tyr Arg Phe Tyr Gly Glu Pro Val Ile Lys Ala Cys
100          105          110
Ile Glu Asn Gly Ala Ser Cys Ile Asp Ile Ser Gly Glu Pro Gln Phe
115          120          125
Leu Glu Leu Met Gln Leu Lys Tyr His Glu Lys Ala Ala Asp Lys Gly
130          135          140
Val Tyr Ile Ile Gly Ser Ser Gly Phe Asp Ser Ile Pro Ala Asp Leu
145          150          155          160
Gly Val Ile Tyr Thr Arg Asn Lys Met Asn Gly Thr Leu Thr Ala Val
165          170          175
Glu Ser Phe Leu Thr Ile His Ser Gly Pro Glu Gly Leu Ser Ile His
180          185          190
Asp Gly Thr Trp Lys Ser Ala Ile Tyr Gly Phe Gly Asp Gln Ser Asn
195          200          205
Leu Arg Lys Leu Arg Asn Val Ser Asn Leu Lys Pro Val Pro Leu Ile
210          215          220
Gly Pro Lys Leu Lys Arg Arg Trp Pro Ile Ser Tyr Cys Arg Glu Leu
225          230          235          240
Lys Gly Tyr Ser Ile Pro Phe Met Gly Ser Asp Val Ser Val Val Arg
245          250          255
Arg Thr Gln Arg Tyr Leu Tyr Glu Asn Leu Glu Glu Ser Pro Val Gln
260          265          270
Tyr Ala Ala Tyr Val Thr Val Gly Gly Ile Thr Ser Val Ile Lys Leu
275          280          285
Met Phe Ala Gly Leu Phe Phe Leu Phe Phe Val Arg Phe Gly Ile Gly
290          295          300
Arg Gln Leu Leu Ile Lys Phe Pro Trp Phe Phe Ser Phe Gly Tyr Phe
305          310          315          320
Ser Lys Gln Gly Pro Thr Gln Lys Gln Ile Asp Ala Ala Ser Phe Thr
325          330          335
Leu Thr Phe Phe Gly Gln Gly Tyr Ser Gln Gly Thr Gly Thr Asp Lys
340          345          350
Asn Lys Pro Asn Ile Lys Ile Cys Thr Gln Val Lys Gly Pro Glu Ala
355          360          365
Gly Tyr Val Ala Thr Pro Ile Ala Met Val Gln Ala Ala Met Thr Leu

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370	375	380
Leu Ser Asp Ala Ser His Leu Pro Lys Ala Gly Gly Val Phe Thr Pro		
385	390	395
Gly Ala Ala Phe Ser Lys Thr Lys Leu Ile Asp Arg Leu Asn Lys His		400
	405	410
Gly Ile Glu Phe Ser Val Ile Ser Ser Ser Glu Val		415
	420	425

<210> 4395

<211> 1893

<212> DNA

<213> Homo sapiens

<400> 4395

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300
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1140
aagctggccg agcagggtgg caaacaggca ggtgacctgc gtcggtcat ccgctcccca
1200

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 1680
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 1740
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 1860
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 1893

<210> 4396

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4396

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Ser	Gly	Asp	Leu	Pro	Gln	Ala	Ala	Ser	His	Leu	Gln	Glu	Leu	Leu	Ala
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<211> 2543

<212> DNA

<213> Homo sapiens

<400> 4397

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<213> Homo sapiens

<400> 4398

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Asn	Ser	Pro	Val	Leu	Leu	Ser	Arg	Leu	His	Phe	Glu	Lys	Asp	Ala	Asp
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Ser	Ser	Glu	Arg	Ile	Ile	Ala	Pro	Met	Arg	Trp	Gly	Leu	Val	Pro	Ser
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Trp	Phe	Lys	Glu	Ser	Asp	Pro	Ser	Lys	Leu	Gln	Phe	Asn	Thr	Thr	Asn
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Cys	Arg	Ser	Asp	Thr	Val	Met	Glu	Lys	Arg	Ser	Phe	Lys	Val	Pro	Leu
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Gly	Lys	Gly	Arg	Arg	Cys	Val	Val	Leu	Ala	Asp	Gly	Phe	Tyr	Glu	Trp
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Gln	Arg	Cys	Gln	Gly	Thr	Asn	Gln	Arg	Gln	Pro	Tyr	Phe	Ile	Tyr	Phe
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Pro	Gln	Ile	Lys	Thr	Glu	Lys	Ser	Gly	Ser	Ile	Gly	Ala	Ala	Asp	Ser
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Ala	Gly	Ile	Phe	Asp	Cys	Trp	Glu	Pro	Pro	Glu	Gly	Gly	Asp	Val	Leu
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Tyr	Ser	Tyr	Thr	Ile	Ile	Thr	Val	Asp	Ser	Cys	Lys	Gly	Leu	Ser	Asp
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Ile	His	His	Arg	Met	Pro	Ala	Ile	Leu	Asp	Gly	Glu	Glu	Ala	Val	Ser

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Ile His Pro Thr Glu Asn Ile Thr Phe His Ala Val Ser Ser Val Val					
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Asn Asn Ser Arg Asn Asn Thr Pro Glu Cys Leu Ala Pro Val Asp Leu					
	260		265		270
Val Val Lys Lys Glu Leu Arg Ala Ser Gly Ser Ser Gln Arg Met Leu					
	275		280		285
Gln Trp Leu Ala Thr Lys Ser Pro Lys Lys Glu Asp Ser Lys Thr Pro					
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Gln Lys Glu Glu Ser Asp Val Pro Gln Trp Ser Ser Gln Phe Leu Gln					
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Lys Ser Pro Leu Pro Thr Lys Arg Gly Thr Ala Gly Leu Leu Glu Gln					
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Trp Leu Lys Arg Glu Lys Glu Glu Glu Pro Val Ala Lys Arg Pro Tyr					
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<400> 4400

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Leu Gly Val Gln Ala Gly Gln Thr Gln Lys Leu Leu Leu Gln Lys Glu
 35           40           45
Ala Leu Asp Glu Gln Leu Val Gln Val Lys Glu Ala Glu Arg His His
 50           55           60
Ser Ser Pro Lys Arg Glu Leu Pro Pro Gly Ile Gly Asp Met Val Glu
 65           70           75           80
Leu Met Gly Val Gln Asp Gln His Met Asp Glu Arg Asp Val Arg Arg
 85           90           95
Phe Gln Leu Lys Ile Ala Glu Leu Asn Ser Val Ile Arg Lys Leu Glu
 100          105          110
Asp Arg Asn Thr Leu Leu Ala Asp Glu Arg Asn Glu Leu Leu Lys Arg
 115          120          125
Ser Arg Glu Thr Glu Val Gln Leu Lys Pro Leu Val Glu Lys Asn Lys
 130          135          140
Arg Met Asn Lys Lys Asn Glu Asp Leu Leu Gln Ser Ile Gln Arg Met
 145          150          155          160
Glu Glu Lys Ile Lys Asn Leu Thr Arg Glu Asn Val Glu Met Lys Glu
 165          170          175
Lys Leu Ser Ala Gln Ala Ser Leu Lys Arg His Thr Ser Leu Asn Asp
 180          185          190
Leu Ser Leu Thr Arg Asp Glu Gln Glu Ile Glu Phe Leu Arg Leu Gln
 195          200          205
Val Leu Glu Gln Gln His Val Ile Asp Asp Leu Ser Leu Glu Arg Glu
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 Gln Tyr Gly Arg Trp Ala Val Val Ser Gly Ala Thr Asp Gly Ile Gly
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<212> DNA

<213> Homo sapiens

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 <213> Homo sapiens

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<211> 918

<212> DNA

<213> Homo sapiens

<400> 4405

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<400> 4408

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Ala Tyr Asp Met Val Leu Val Glu Asp Glu Glu Val Asn Arg Met His
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Glu Ser Leu His Leu Phe Asn Ser Ile Cys Asn His Lys Tyr Phe Ser
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Thr Thr Ser Ile Val Leu Phe Leu Asn Lys Lys Asp Ile Phe Gln Glu
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Lys Val Thr Lys Val His Leu Ser Ile Cys Phe Pro Glu Tyr Thr Gly
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<210> 4409

<211> 4217

<212> DNA

<213> Homo sapiens

<400> 4409

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<211> 405

<212> PRT

<213> Homo sapiens

<400> 4410

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			20					25					30	His
Ser	His	Met	Ala	Thr	Arg	Ser	Arg	Glu	Asn	Ala	Arg	Arg	Arg	Gly
		35					40				45			Thr
Pro	Glu	Pro	Glu	Glu	Ala	Gly	Arg	Arg	Gly	Gly	Lys	Arg	Pro	Lys
		50				55					60			Pro
Pro	Pro	Gly	Val	Ala	Ser	Ala	Ser	Ala	Arg	Gly	Pro	Pro	Ala	Thr
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Gly	Leu	Gly	Ala	Lys	Val	Lys	Leu	Glu	Glu	Lys	Gln	His	His	Pro
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Gln	Lys	Cys	Pro	Arg	Val	Phe	Asn	Asn	Arg	Trp	Tyr	Leu	Glu	Lys
			100					105					110	His
Met	Asn	Val	Thr	His	Ser	Arg	Met	Gln	Ile	Cys	Asp	Gln	Cys	Gly
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Arg	Phe	Leu	Leu	Glu	Ser	Glu	Leu	Leu	Leu	His	Arg	Gln	Thr	Asp
		130				135					140			Cys
Glu	Arg	Asn	Ile	Gln	Cys	Val	Thr	Cys	Gly	Lys	Ala	Phe	Lys	Lys
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			260					265					270	Asn
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Pro	Phe	Ile	Cys	Glu	Ile	Cys	Gly	Lys	Ser	Phe	Thr	Ser	Arg	Pro
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Met	Lys	Arg	His	Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Pro

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Pro Ala Ala Pro Gly Leu Pro Pro Thr Gln Pro Gln Ala His Ala Leu
          355          360          365
Pro Leu Leu Pro Gly Leu Pro Gln Thr Leu Pro Pro Pro Pro His Leu
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<210> 4411

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<212> DNA

<213> Homo sapiens

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<211> 113

<212> PRT

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Ala Gln Ala Val Cys Pro Leu Phe Ser Ser Trp Cys Pro Ala Pro Pro
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Arg Cys His Leu Pro Gln Trp Gln Trp Gly Phe Ile Thr Gly Ser Ser
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Gly Pro Leu Pro Met Ala Gly Gly Val Pro Gly Gly Pro Asn Gln Ala

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Cys	Gln	Arg	Gln	His	Val	Ser	Leu	His	Arg	Ser	His	Gln	Ala	Pro	Leu
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<210> 4415
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 180
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<400> 4416

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      20           25           30
Arg Leu Arg Cys Arg Thr Leu Met Phe Ile Thr Ser Ser Tyr Pro Lys
      35           40           45
Arg Asn Gly Phe Arg His Val Leu Ser Gln Gln Glu Ile Asp Phe Phe
      50           55           60
Leu Asn Tyr Leu Ile Leu Leu Pro Asn Ile Thr Glu Val Met Arg Ser
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<211> 980

<212> DNA

<213> Homo sapiens

<400> 4417

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<210> 4418

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4418

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		20						25					30		
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	50					55					60				
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Gln	Lys	Lys	Val	Lys	Gln	Met	Val	Glu	Glu	Ile	Glu	Ser	Leu	Lys	Lys
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Lys	Val	Gln	Gln	Lys	Gln	Leu	Leu	Ile	Leu	Gln	Leu	Leu	Glu	Lys	Ile
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Val	Gly	Cys	Asp	Leu	Leu	Pro	Ser	Pro	Thr	Gly	Arg	Thr	Arg	Glu	Ile
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Val	Met	Pro	Ser	Arg	Asn	Tyr	Thr	Pro	Tyr	Thr	Arg	Val	Leu	Glu	Leu
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<211> 369

<212> DNA

<213> Homo sapiens

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 Trp Cys Asp Leu Gly Ser Leu Gln Pro Pro Pro Pro Gln Leu Lys Gln
 35 40 45
 Leu Ser Cys Pro Ser His Pro Ser Xaa Asn Tyr Arg Pro Val Pro Pro
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 His Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Gly Val Ser Pro Tyr
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 Trp Pro Gly Arg Ser Gln Thr Pro Gly Pro Met
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<210> 4421
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 <213> Homo sapiens

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<211> 58

<212> PRT

<213> Homo sapiens

<400> 4422

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 Thr Trp Gln Asn Pro Val Ser Thr Lys Asn Thr Lys Ile Cys Arg Ala
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 Trp Trp Gln Met Pro Val Ile Pro Ala Thr
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<210> 4423

<211> 2673

<212> DNA

<213> Homo sapiens

<400> 4423

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<212> PRT

<213> Homo sapiens

<400> 4424

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		20					25				30				
Ser	Gly	Asp	Glu	Glu	Glu	Glu	Gly	Pro	Ile	Val	Leu	Gly	Arg	Arg	Gln
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Lys	Ala	Leu	Gly	Lys	Asn	Arg	Ser	Ala	Asp	Phe	Asn	Pro	Asp	Phe	Val
	50				55				60						
Phe	Thr	Glu	Lys	Glu	Gly	Thr	Tyr	Asp	Gly	Ser	Trp	Ala	Leu	Ala	Asp
65			70				75			80					
Val	Met	Ser	Gln	Leu	Lys	Lys	Lys	Arg	Ala	Ala	Thr	Thr	Leu	Asp	Glu
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Lys	Ile	Glu	Lys	Val	Arg	Lys	Lys	Arg	Lys	Thr	Glu	Asp	Lys	Glu	Ala
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3611

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 595 600 605
 Thr Ala Lys Arg Leu Leu Glu Lys Gly Lys Glu Ala Val Val Gln Glu
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 Pro Glu Arg Ser Trp Phe Gln Thr Lys Glu Glu Arg Lys Lys Glu Lys
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 Ile Ala Lys Ala Leu Gln Glu Phe Asp Leu Ala Leu Arg Gly Lys Lys
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 Pro Glu Glu Glu Pro Val Arg Gly Pro Ala Lys Lys Gln Lys Gln Gly
 705 710 715 720
 Lys Lys Ser Val Phe Asp Glu Glu Leu Thr Asn Thr Ser Lys Lys Ala
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<211> 5199

<212> DNA

<213> Homo sapiens

<400> 4425

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<212> PRT

<213> Homo sapiens

<400> 4426

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Thr Lys Arg Lys Ala Ile Ala Ala Glu Asp Pro Ser Leu Asp Phe Arg			
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Asn Asn Pro Thr Lys Glu Asp Leu Gly Lys Leu Gln Pro Leu Val Ala			
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Ser Tyr Leu Cys Ser Asp Val Thr Ser Val Pro Ser Lys Glu Ser Leu			
	85	90	95
Lys Leu Gln Gly Val Phe Ser Lys Gln Thr Val Leu Lys Ser His Pro			
	100	105	110
Leu Leu Ser Gln Ser Tyr Glu Leu Arg Ala Glu Leu Leu Gly Arg Gln			
	115	120	125
Pro Val Leu Glu Phe Ser Leu Glu Asn Leu Arg Thr Met Asn Thr Ser			
	130	135	140
Gly Gln Thr Ala Leu Pro Gln Ala Pro Val Asn Gly Leu Ala Lys Lys			
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Leu Thr Lys Ser Ser Thr His Ser Asp His Asp Asn Ser Thr Ser Leu			
	165	170	175
Asn Gly Gly Lys Arg Ala Leu Thr Ser Ser Ala Leu His Gly Gly Glu			
	180	185	190
Met Gly Gly Ser Glu Ser Gly Asp Leu Lys Gly Gly Met Thr Asn Cys			
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Thr Leu Pro His Arg Ser Leu Asp Val Glu His Thr Thr Leu Tyr Ser			
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Asn Asn Ser Thr Ala Asn Lys Ser Phe Val Asn Ser Met Glu Gln Pro			
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Ala Leu Gln Gly Ser Ser Arg Leu Ser Pro Gly Thr Asp Ser Ser Ser			
	245	250	255
Asn Leu Gly Gly Val Lys Leu Glu Gly Lys Lys Ser Pro Leu Ser Ser			
	260	265	270
Ile Leu Phe Ser Ala Leu Asp Ser Asp Thr Arg Ile Thr Ala Leu Leu			
	275	280	285
Arg Arg Gln Ala Asp Ile Glu Ser Arg Ala Arg Arg Leu Gln Lys Arg			
	290	295	300
Leu Gln Val Val Gln Ala Lys Gln Val Glu Arg His Ile Gln His Gln			
305	310	315	320
Leu Gly Gly Phe Leu Glu Lys Thr Leu Ser Lys Leu Pro Asn Leu Glu			
	325	330	335
Ser Leu Arg Pro Arg Ser Gln Leu Met Leu Thr Arg Lys Ala Glu Ala			
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Ala Leu Arg Lys Ala Ala Ser Glu Thr Thr Thr Ser Glu Gly Leu Ser			
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Asn Phe Leu Lys Ser Asn Ser Ile Ser Glu Glu Leu Glu Arg Phe Thr			
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Ala Ser Gly Ile Ala Asn Leu Arg Cys Ser Glu Gln Ala Phe Asp Ser			
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Asp Val Thr Asp Ser Ser Ser Gly Gly Glu Ser Asp Ile Glu Glu Glu			
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Glu Leu Thr Arg Ala Asp Pro Glu Gln Arg His Val Pro Leu Arg Arg			
	420	425	430
Arg Ser Glu Trp Lys Trp Ala Ala Asp Arg Ala Ala Ile Val Ser Arg			

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 Gln Gln Thr Asp Ile Tyr Lys Gln Ile Arg Ala Asn Lys Gly Leu Ile
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 Pro Leu Ser Ser Glu Val Lys Thr Asp His Gly Thr Asp Lys Leu Ile
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 690 695 700
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 Lys Asp Arg His Lys Leu Val Ser Ser Phe Leu Thr Thr Ala Lys Leu
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 Ser His His Gln Thr Arg Pro Asp Arg Thr His Arg Gln His Leu Asp
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 His His Thr Asp Met Ser Ser Ser Ser Tyr Leu Ala Ala Thr His His
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 965 970 975
 Ser His Ser Leu Ser Glu Tyr Ser His Gly Gln Ser Pro Arg Ser Pro
 980 985 990
 Ile Ser Pro Glu Leu His Ser Ala Pro Leu Thr Pro Val Ala Arg Asp
 995 1000 1005
 Thr Leu Arg His Leu Ala Ser Glu Asp Thr Arg Cys Ser Thr Pro Glu
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 Xaa Pro Gly Asp Arg Gly Ser Ala His Leu Ala Ser His Cys Pro Pro
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<211> 4474

<212> DNA

<213> Homo sapiens

<400> 4427

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<211> 763

<212> PRT

<213> Homo sapiens

<400> 4428

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Ser	Ala	Leu	Leu	Thr	Arg	Thr	His	Ile	Asn	Tyr	Gly	Val	Lys	Gly	Asp
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Val	Ala	Val	Val	Arg	Ile	Asn	Ser	Pro	Asn	Ser	Lys	Val	Asn	Thr	Leu
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Ser	Lys	Glu	Leu	His	Ser	Glu	Phe	Ser	Glu	Val	Met	Asn	Glu	Ile	Trp
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Ala	Ser	Asp	Gln	Ile	Arg	Ser	Ala	Val	Leu	Ile	Ser	Ser	Lys	Pro	Gly
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Lys	Leu	Glu	Lys	Ser	Thr	Lys	Pro	Ile	Val	Ala	Ala	Ile	Asn	Gly	Ser
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 Val Asp Val Ala Lys His Val Ala Glu Asp Leu Gly Lys Val Phe Gly

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Glu Gly Val Lys Arg Lys Asp Leu Asn Ser Asp Met Asp Ser Ile Leu		640
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Ala Ser Leu Lys Leu Pro Pro Lys Ser Glu Val Ser Ser Asp Glu Asp		655
	660	665
Ile Gln Phe Arg Leu Val Thr Arg Phe Val Asn Glu Ala Val Met Cys		670
	675	680
Leu Gln Glu Gly Ile Leu Ala Thr Pro Ala Glu Gly Asp Ile Gly Ala		685
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Val Phe Gly Leu Gly Phe Pro Pro Cys Leu Gly Gly Pro Phe Arg Phe		700
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Val Asp Leu Tyr Gly Ala Gln Lys Ile Val Asp Arg Leu Lys Lys Tyr		720
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<210> 4429

<211> 981

<212> DNA

<213> Homo sapiens

<400> 4429

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180
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240
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300
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360
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660
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720
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780

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<210> 4430

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4430

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			20					25					30		
Ser	Ala	Leu	Pro	Gln	Val	Asn	Thr	Arg	Arg	Glu	Ser	Leu	Asn	Arg	Gln
			35				40					45			
Ala	Pro	Gln	Pro	Arg	Arg	Lys	Pro	Ser	Phe	Gln	Thr	Val	Gly	Ile	Pro
			50			55					60				
Phe	Ile	Pro	Trp	His	Arg	Glu	Pro	Lys	Gly	Met	Gln	Thr	Asp	Pro	Gly
65					70					75				80	
Arg	Ala	Leu	His	Ser	Gln	Thr	Leu	Ala	Arg	Thr	Arg	Arg	Leu	Gly	Ala
				85					90					95	
Pro	Arg	Arg	Ala	Leu	Pro	Pro	Arg	Pro	Pro	Pro	Pro	Ala	Asp	Ser	Pro
			100					105					110		
Leu	Cys	Glu	Leu	Asn	His	Leu	Gly	Ala	Met	Cys	Arg	Gly	Arg	Ala	Ser
			115				120						125		
Ala	Ser	Glu	Val	Leu	Gly	Gly	Pro	Val	Thr	Ala	Ser	Arg	Phe	Tyr	Gly
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145						150									

<210> 4431

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4431

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 180
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 300
 cccaaacaaa cgtgctgtgg tccctgcccg gtgtccacag tgccagcccc accctcccag
 360

cccgttgccc atccctgcgg ggctgcagcc atccctctcc acagcaagga tgacgtggaa
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<210> 4432
 <211> 57
 <212> PRT
 <213> Homo sapiens

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 20 25 30
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 35 40 45
 Leu Cys Phe Leu Ser Asp Pro Ile Arg
 50 55

<210> 4433
 <211> 447
 <212> DNA
 <213> Homo sapiens

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 120
 ctccgcttcc tggacatgag ccagaaccag ttccagtacc tgccagacgg ctctctgagg
 180
 aaaatgcctt ccctctccca cctgaacctc caccagaatt gcctgatgac gcttcacatt
 240
 cgggagcacg agccccccgg agcgcctcacc gagctggacc tgagccacaa ccagctgtcg
 300
 gagctgcacc tggctccggg gctggccagc tgctgggca gcctgcgctt gttcaacctg
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 420
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<210> 4434
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 4434
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 Val Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu

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Phe Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln
      35                40                45
Asn Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser
      50                55                60
Leu Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile
65                70                75                80
Arg Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His
      85                90                95
Asn Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu
      100                105                110
Gly Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val
      115                120                125
Pro Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met
      130                135                140
Ser His Asn Gln Ile
145

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<210> 4435

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4435

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180
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240
taccacatca tccacagaga catcaagcca gacaatatcc tgctggatga acacggacat
300
gttcacatta cagacttcaa catagcgacg gtagtgaaag gagcagaaag ggcttctctc
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420
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cta
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<210> 4436

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4436

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Gln Gly Leu Glu His Pro Phe Val Val Asn Leu Trp Tyr Ser Phe Gln
      20           25           30
Asp Glu Glu Asp Met Phe Met Val Val Asp Leu Leu Leu Gly Gly Asp
      35           40           45
Leu Arg Tyr His Leu Gln Gln Asn Val His Phe Thr Glu Gly Thr Val
      50           55           60
Lys Leu Tyr Ile Cys Glu Leu Ala Leu Ala Leu Glu Tyr Leu Gln Arg
      65           70           75           80
Tyr His Ile Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Leu Asp
      85           90           95
Glu His Gly His Val His Ile Thr Asp Phe Asn Ile Ala Thr Val Val
      100          105          110
Lys Gly Ala Glu Arg Ala Ser Ser Met Ala Gly Thr Lys Pro Tyr Met
      115          120          125
Ala Pro Glu Val Phe Gln Val Tyr Met Asp Arg Gly Pro Gly Tyr Ser
      130          135          140
Tyr Pro Val Asp Trp Trp Ser Leu Gly Ile Thr Ala Tyr Glu Leu Leu
      145          150          155          160
Arg Gly Trp Arg Pro Tyr Glu Ile His Ser Val Thr Pro Ile Asp Glu
      165          170          175
Ile Leu Asn Met Phe Lys Val Glu Arg Val His Tyr Ser Ser Thr Trp
      180          185          190
Cys Lys Gly Met Val Ala Leu Leu Arg Lys Leu Leu Thr Lys Asp Pro
      195          200          205
Glu Ser Arg Val Ser Ser Leu His Asp Ile Gln Ser Val Pro Tyr Leu
      210          215          220
Ala Asp Met Asn Trp Asp Ala Val Phe Lys Lys Ala Leu Met Pro Gly
      225          230          235          240
Phe Val Pro Asn Lys Gly Arg Leu Asn Cys Asp Pro Thr Phe Glu Leu
      245          250          255
Glu Glu Met Ile Leu
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<210> 4437

<211> 620

<212> DNA

<213> Homo sapiens

<400> 4437

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120
gtgtccatgc tgaagatgga cgagagcacg ctgctgcggg aggccagga gctcagcctg
180
gagaagctgc agcaggccgt gaggcagaac gggctcatgt cggggctgat gcagatgctg
240

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 360
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 420
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 480
 aagcagaagg acctactgga gcagatgatg gccgagatga ttggcgagtt cccagacctg
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<210> 4438
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 4438
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 20 25 30
 Val Val Glu Leu Cys Gln Tyr Arg Val Ser Met Leu Lys Met Asp Glu
 35 40 45
 Ser Thr Leu Leu Arg Glu Ala Gln Glu Leu Ser Leu Glu Lys Leu Gln
 50 55 60
 Gln Ala Val Arg Gln Asn Gly Leu Met Ser Gly Leu Met Gln Met Leu
 65 70 75 80
 Leu Leu Lys Val Ser Ala His Ile Thr Glu Gln Leu Gly Met Ala Pro
 85 90 95
 Gly Gly Glu Phe Arg Glu Ala Phe Lys Glu Ala Ser Lys Val Pro Phe
 100 105 110
 Cys Lys Phe His Leu Gly Asp Arg Pro Ile Pro Val Thr Phe Lys Arg
 115 120 125
 Ala Ile Ala Ala Leu Ser Phe Trp Gln Lys Val Arg Leu Ala Trp Gly
 130 135 140
 Leu Cys Phe Leu Ser Asp Pro Ile Ser Lys Asp Asp Val Glu Arg Cys
 145 150 155 160
 Lys Gln Lys Asp Leu Leu Glu Gln Met Met Ala Glu Met Ile Gly Glu
 165 170 175
 Phe Pro Asp Leu His Arg Thr Ile Val Ser Glu Arg Asp Val Tyr Leu
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 Thr Tyr Met Leu Arg Gln Ala Ala Arg Arg Leu Glu Leu Pro
 195 200 205

<210> 4439
 <211> 2121
 <212> DNA
 <213> Homo sapiens

<400> 4439

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180
ttaccatctt attttttctt ttgagaccaa gcatcacaga ccaaagcca caaagtttac
240
aataatttat tattgttgca tgacatttgc cagtaaaata aattatagaa actatagagt
300
ctttataaac tattttgtat atcatattca cttcctaatag cttactgcag taactgtatg
360
aaatttaatt agattacgtt ttagcattag tcagaagatt taaaaaatat gtaaaatgtt
420
ttcacagtac ttgggattta taaaagaccc cattatttta acttttgtgc aacctgtttg
480
aaatgtataa aaaacctttt acaaaccaaa aggtggcgta aggttttact gagttgctga
540
agacatctta ctttcttgaa tttctactta acatccatgt ggtgcacttt ttcaggcatt
600
gtaataagtg caaataaata atcaattatt gatttctaaa aatctatacc aatagacaat
660
actcaggctt ggaaatattt tgaacactca gatataaaaa ttcagtaaac aatttatgca
720
tggtattttt tctccctgtc tctccctctc cctcctcctt cccctatcta ttggttaaa
780
aaaaaaaaag ttcaacttcg atttaagtcc tagggcctga caaagtgacc ctggataaat
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gcataaatcc tttcctgcag ggacggaaga gttttcaaact ccttgctgaa agcattttgt
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<210> 4440

<211> 82

<212> PRT

<213> Homo sapiens

<400> 4440

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Leu	Arg	Phe	Ala	Phe	Ile	Asp	Val	Gly	Ile	Phe	Arg	Asn	Ser	Ala	Pro
			20					25					30		
Arg	Leu	Ser	Met	Ile	Gly	Ala	Asp	Ser	Ser	Glu	Glu	Lys	Phe	Leu	Arg
		35					40					45			
Arg	Ile	Gly	Arg	Phe	Gly	Tyr	Gly	Tyr	Gly	Pro	Tyr	Gln	Pro	Val	Pro
	50					55				60					
Glu	Gln	Pro	Leu	Tyr	Pro	Gln	Pro	Tyr	Gln	Pro	Gln	Tyr	Gln	Gln	Tyr
65					70				75					80	
Thr	Phe														

<210> 4441

<211> 2055

<212> DNA

<213> Homo sapiens

<400> 4441

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<210> 4442
<211> 517
<212> PRT
<213> Homo sapiens
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<400> 4442																
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			20					25					30			
Trp	Lys	Glu	Lys	Val	Leu	Trp	Ala	Leu	Leu	Ala	Val	Leu	Leu	Ala	Ser	
		35					40					45				
Trp	Arg	Leu	Trp	Ala	Ile	Lys	Asp	Phe	Gln	Glu	Cys	Thr	Trp	Gln	Val	
		50				55					60					
Val	Leu	Asn	Glu	Phe	Lys	Arg	Val	Gly	Glu	Ser	Gly	Val	Ser	Asp	Ser	
65					70					75					80	
Phe	Phe	Glu	Gln	Glu	Pro	Val	Asp	Thr	Val	Ser	Ser	Leu	Phe	His	Met	
				85					90					95		
Leu	Val	Asp	Ser	Pro	Ile	Asp	Pro	Ser	Glu	Lys	Tyr	Leu	Gly	Phe	Pro	
			100					105					110			
Tyr	Tyr	Leu	Lys	Ile	Asn	Tyr	Ser	Cys	Glu	Glu	Lys	Pro	Ser	Glu	Asp	
		115				120						125				
Leu	Val	Arg	Met	Gly	His	Leu	Thr	Gly	Leu	Lys	Pro	Leu	Val	Leu	Val	
		130				135					140					
Thr	Phe	Gln	Ser	Pro	Val	Asn	Phe	Tyr	Arg	Trp	Lys	Ile	Glu	Gln	Leu	
145					150					155					160	
Gln	Ile	Gln	Met	Glu	Ala	Ala	Pro	Phe	Arg	Ser	Lys	Gly	Gly	Pro	Gly	
				165					170					175		
Gly	Gly	Gly	Arg	Asp	Arg	Asn	Leu	Ala	Gly	Met	Asn	Ile	Asn	Gly	Phe	
			180					185					190			
Leu	Lys	Arg	Asp	Arg	Asp	Asn	Asn	Ile	Gln	Phe	Thr	Val	Gly	Glu	Glu	
		195				200						205				
Leu	Phe	Asn	Leu	Met	Pro	Gln	Tyr	Phe	Val	Gly	Val	Ser	Ser	Arg	Pro	
		210				215						220				
Leu	Trp	His	Thr	Val	Asp	Gln	Ser	Pro	Val	Leu	Ile	Leu	Gly	Gly	Ile	
225					230					235					240	
Pro	Asn	Glu	Lys	Tyr	Val	Leu	Met	Thr	Asp	Thr	Ser	Phe	Lys	Asp	Phe	
				245					250					255		
Ser	Leu	Val	Glu	Val	Asn	Gly	Val	Gly	Gln	Met	Leu	Ser	Ile	Asp	Ser	
			260					265					270			
Cys	Trp	Val	Gly	Ser	Phe	Tyr	Cys	Pro	His	Ser	Gly	Phe	Thr	Ala	Thr	
		275					280					285				
Ile	Tyr	Asp	Thr	Ile	Ala	Thr	Glu	Ser	Thr	Leu	Phe	Ile	Arg	Gln	Asn	
		290				295					300					
Gln	Leu	Val	Tyr	Tyr	Phe	Thr	Gly	Thr	Tyr	Thr	Thr	Leu	Tyr	Glu	Arg	
305					310					315					320	
Asn	Arg	Gly	Ser	Gly	Glu	Cys	Ala	Val	Ala							

325 330 335
 Gly Thr Leu Val Asn Pro Ser Thr Glu Gly Ser Trp Ile Arg Val Leu
 340 345 350
 Ala Ser Glu Cys Ile Lys Lys Leu Cys Pro Val Tyr Phe His Ser Asn
 355 360 365
 Gly Ser Glu Tyr Ile Met Ala Leu Thr Thr Gly Lys His Glu Gly Tyr
 370 375 380
 Val His Phe Gly Thr Ile Arg Val Thr Thr Cys Ser Ile Ile Trp Ser
 385 390 395 400
 Glu Tyr Ile Ala Gly Glu Tyr Thr Leu Leu Leu Leu Val Glu Ser Gly
 405 410 415
 Tyr Gly Asn Ala Ser Lys Arg Phe Gln Val Val Ser Tyr Asn Thr Ala
 420 425 430
 Ser Asp Asp Leu Glu Leu Leu Tyr His Ile Pro Glu Phe Ile Pro Glu
 435 440 445
 Ala Arg Gly Leu Glu Phe Leu Met Ile Leu Gly Thr Glu Ser Tyr Thr
 450 455 460
 Ser Thr Ala Met Ala Pro Lys Gly Ile Phe Cys Asn Pro Tyr Asn Asn
 465 470 475 480
 Leu Ile Phe Ile Trp Gly Asn Phe Leu Leu Gln Arg Ser Gly Thr Ser
 485 490 495
 Trp Arg Ala Ala Thr Gly Ser Thr Ser Cys Ser Leu Pro Arg Ala Gly
 500 505 510
 Arg Cys Thr Ser Ala
 515

<210> 4443
 <211> 692
 <212> DNA
 <213> Homo sapiens

<400> 4443
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 180
 gttttgcgtc accctctgcg aagcttcttg caaacttgac tccttgccca gtgccccag
 240
 ccccaaggct ggtctccagg aggtaaggcc cgccctgcag gcaacaccgg tgcttgggct
 300
 cctgctgagc agttctttcc tgcgagtaac agaaccaggg agggaggtgg gctgtggcct
 360
 cccctgcccc tacagtcac tcctgcagct cccaccatgc tggactcatc agcagcagag
 420
 caagtgaccc gactgacgct gaagctcttg ggacagaagc tggagcaaga acggcagaac
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 540
 ccctgcagac tgctctgaag agaaggaggg accttctgca gagactccgg gaacaacacc
 600
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cagccctgcc cccagagctg ccccccacgc gt
692

<210> 4444
<211> 108
<212> PRT
<213> Homo sapiens

<400> 4444
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Leu Met Pro Asn Gln Val Gln Thr Thr Leu Leu Phe Cys Val Thr Leu
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Cys Glu Ala Ser Cys Lys Leu Asp Ser Leu Pro Ser Ala Pro Ser Pro
35 40 45
Lys Ala Gly Leu Gln Glu Val Arg Pro Ala Leu Gln Ala Thr Pro Val
50 55 60
Leu Gly Leu Leu Leu Ser Ser Phe Leu Arg Val Thr Glu Pro Gly
65 70 75 80
Arg Glu Val Gly Cys Gly Leu Pro Cys Pro Tyr Ser His Leu Leu Gln
85 90 95
Leu Pro Pro Cys Trp Thr His Gln Gln Gln Ser Lys
100 105

<210> 4445
<211> 901
<212> DNA
<213> Homo sapiens

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120
actcagctgt cccaggagt gccagaccc tcattcttat ccaggaccta ggagccctac
180
ccctggcctt cctcatcag ccgtaaatga tgatttactg ctgttaccat catcactgcc
240
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300
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360
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420
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480
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gggctatgat caggtgact ctacgaaccc ttcattggaca ttataatact ctctgccatt
660
cacttttggg ctaatctgac ttcaaccccc acttacttgg tctctccttt tacaaccaac
720

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 780
 tgagacgtta cacatttaac attctcttct gcacaagttg cctttgtgtg agtatactaa
 840
 ctttctgtag aggtatactt gtaatcacia ataagaataa attatataaa acaaaaaaaaa
 900
 a
 901

<210> 4446
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4446
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 Lys Met Asp Leu Pro Pro Gly Asp Pro Gly Val Leu Pro Leu Ser Cys
 20 25 30
 Pro Gln Glu Cys Pro Asp Pro His Ser Tyr Pro Gly Pro Arg Ser Pro
 35 40 45
 Thr Pro Gly Leu Pro Ser Ser Ala Val Asn Asp Asp Leu Leu Leu Leu
 50 55 60
 Pro Ser Ser Leu Pro Ser Val Thr Lys Gly Leu Pro Arg Cys Gln Leu
 65 70 75 80
 Trp Asn Glu Gly Cys Pro Trp Glu Val Met Ile Leu Arg Tyr Thr Gly
 85 90 95
 Ala Gln Gln Ile Ala Ser Ser Tyr Pro Gln Thr Val Phe Ala Cys Met
 100 105 110
 Gln Pro Leu Ala Leu Pro Leu Cys Gly Arg Lys Pro Ala Gln Gly His
 115 120 125
 Thr Ala Gly Gln Gln Gln His Ser Trp Ser Gln Ile
 130 135 140

<210> 4447
 <211> 951
 <212> DNA
 <213> Homo sapiens

<400> 4447
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 gtgggtgggt atggccgcct cggacagtcc cttgtgtccc gccttctggc tcagggatca
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 240
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 300
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 360
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 420

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 720
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 780
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 840
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 951

<210> 4448

<211> 263

<212> PRT

<213> Homo sapiens

<400> 4448

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		20						25					30		
Asp	Arg	Gly	Pro	Trp	Arg	Val	Gly	Val	Val	Gly	Tyr	Gly	Arg	Leu	Gly
		35					40						45		
Gln	Ser	Leu	Val	Ser	Arg	Leu	Leu	Ala	Gln	Gly	Ser	Glu	Leu	Gly	Leu
		50					55					60			
Glu	Leu	Val	Phe	Val	Trp	Asn	Arg	Asp	Pro	Gly	Arg	Met	Ala	Gly	Ser
65					70					75				80	
Val	Pro	Pro	Ala	Leu	Gln	Leu	Glu	Asp	Leu	Thr	Thr	Leu	Glu	Glu	Arg
			85						90					95	
His	Pro	Asp	Leu	Val	Val	Glu	Val	Ala	His	Pro	Lys	Ile	Ile	His	Glu
			100						105					110	
Ser	Gly	Val	Gln	Ile	Leu	Arg	His	Ala	Asn	Leu	Leu	Ser	Leu	Arg	Val
		115						120					125		
Thr	Met	Ala	Thr	His	Pro	Asp	Gly	Phe	Arg	Leu	Glu	Gly	Pro	Leu	Ala
		130					135					140			
Ala	Ala	His	Ser	Pro	Gly	Pro	Cys	Thr	Val	Leu	Tyr	Glu	Gly	Pro	Val
145					150					155				160	
Arg	Gly	Leu	Cys	Pro	Phe	Ala	Pro	Arg	Asn	Ser	Asn	Thr	Met	Ala	Ala
			165						170					175	
Ala	Ala	Leu	Ala	Ala	Pro	Ser	Leu	Gly	Phe	Asp	Gly	Val	Ile	Gly	Val
			180						185					190	
Leu	Val	Ala	Asp	Thr	Ser	Leu	Thr	Asp	Met	His	Val	Val	Asp	Val	Glu
		195					200					205			
Leu	Ser	Gly	Pro	Arg	Gly	Pro	Thr	Gly	Arg	Ser	Phe	Ala	Val	His	Thr
		210				215						220			
Arg	Arg	Glu	Asn	Pro	Ala	Glu	Pro	Gly	Ala	Val	Thr	Gly	Ser	Ala	Thr

225		230		235		240									
Val	Thr	Ala	Phe	Trp	Arg	Ser	Leu	Leu	Ala	Cys	Cys	Gln	Leu	Pro	Ser
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Arg	Pro	Gly	Ile	His	Leu	Cys									
			260												

<210> 4449
 <211> 1365
 <212> DNA
 <213> Homo sapiens

<400> 4449
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 120
 tcaagcattg gaagaattta gggaaaaaaaa tcagagatta caaaaattat ggggttgaag
 180
 attaattctg tattcctcag ttctctatct gtttacatgc ttaattgtat atttgtggta
 240
 tcttcctgat gaatttacag caagacttgc catgacactc ccattttttg cttttccatt
 300
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 360
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 420
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 480
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 660
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 720
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 960
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 1020
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 1080
 gacaaccagt ttaatgaaga atctttagaa cacgatgttc ttgatgataa tacagagcag
 1140
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 1200
 tcagaggaac cagaggagaa acaagagact gagaatgagg aagcctcagt gattgaaacc
 1260

aactccacag ttcttgagc tgattctatt cctgatcctg aactaagtgg agaattcttg
 1320
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 1365

<210> 4450
 <211> 194
 <212> PRT
 <213> Homo sapiens

<400> 4450
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 20 25 30
 Gly Pro Gln Asn Arg Tyr Ala Leu Ile Cys Gln Gln Cys Phe Ser His
 35 40 45
 Asn Gly Met Ala Leu Lys Glu Glu Phe Glu Tyr Ile Ala Phe Arg Cys
 50 55 60
 Ala Tyr Cys Phe Phe Leu Asn Pro Ala Arg Lys Thr Arg Pro Gln Ala
 65 70 75 80
 Pro Arg Leu Pro Glu Phe Ser Phe Glu Lys Arg Gln Val Val Glu Gly
 85 90 95
 Ser Ser Ser Val Gly Pro Leu Pro Ser Gly Ser Val Leu Ser Ser Asp
 100 105 110
 Asn Gln Phe Asn Glu Glu Ser Leu Glu His Asp Val Leu Asp Asp Asn
 115 120 125
 Thr Glu Gln Thr Asp Asp Lys Ile Pro Ala Thr Glu Gln Thr Asn Gln
 130 135 140
 Val Ile Glu Lys Ala Ser Asp Ser Glu Glu Pro Glu Glu Lys Gln Glu
 145 150 155 160
 Thr Glu Asn Glu Glu Ala Ser Val Ile Glu Thr Asn Ser Thr Val Pro
 165 170 175
 Gly Ala Asp Ser Ile Pro Asp Pro Glu Leu Ser Gly Glu Ser Leu Thr
 180 185 190
 Ala Glu

<210> 4451
 <211> 1637
 <212> DNA
 <213> Homo sapiens

<400> 4451
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 180
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 240
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 300

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360
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420
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480
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1020
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<210> 4452

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4452

Met Gly Ala Ala Ala Ser Gln Cys Cys Val Ala Pro Ala Leu His Trp

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Lys Tyr Asn Phe Tyr Leu Pro Phe Phe Phe Phe Gly Pro Ile Met Thr
      35           40           45
Phe Asp Arg Phe His Ala Gln Val Ser Gln Val Glu Pro Val Arg Arg
      50           55           60
Glu Gly Glu Leu Trp His Ile Arg Ala Gln Ala Gly Leu Ser Val Val
      65           70           75           80
Ala Ile Met Ala Val Asp Ile Phe Phe His Phe Phe Tyr Ile Leu Thr
      85           90           95
Ile Pro Ser Asp Leu Lys Phe Ala Asn Arg Leu Pro Asp Ser Ala Leu
      100          105          110
Ala Gly Leu Ala Tyr Ser Asn Leu Val Tyr Asp Trp Val Lys Ala Ala
      115          120          125
Val Leu Phe Gly Val Val Asn Thr Val Ala Cys Leu Asp His Leu Asp
      130          135          140
Pro Pro Gln Pro Pro Lys Cys Ile Thr Ala Leu Tyr Val Phe Ala Glu
      145          150          155          160
Thr His Phe Asp Arg Gly Ile Asn Asp Trp Leu Cys Lys Tyr Val Tyr
      165          170          175
Asn His Ile Gly Gly Glu His Ser Ala Val Ile Pro Glu Leu Ala Ala
      180          185          190
Thr Val Ala Thr Phe Ala Ile Thr Thr Leu Trp Leu Gly Pro Cys Asp
      195          200          205
Ile Val Tyr Leu Trp Ser Phe Leu Asn Cys Phe Gly Leu Asn Phe Glu
      210          215          220
Leu Trp Met Gln Lys Leu Ala Glu Trp Gly Pro Leu Ala Arg Ile Glu
      225          230          235          240
Ala Ser Leu Ser Val Gln Met Ser Arg Arg Val Arg Ala Leu Phe Gly
      245          250          255
Ala Met Asn Phe Trp Ala Ile Ile Met Tyr Asn Leu Val Ser Leu Asn
      260          265          270
Ser Leu Lys Phe Thr Glu Leu Val Ala Arg Arg Leu Leu Leu Thr Gly
      275          280          285
Phe Pro Gln Thr Thr Leu Ser Ile Leu Phe Val Thr Tyr Cys Gly Val
      290          295          300
Gln Leu Val Lys Glu Arg Glu Arg Thr Leu Ala Leu Glu Glu Glu Gln
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Lys Gln Asp Lys Glu Lys Pro Glu
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<210> 4453

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4453

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120
gcacatctat acccactctg gctctgaaag gcttgtaac caaaaatggg cagctggggc
180

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 480
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<210> 4454
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4454
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 35 40 45
 Gly Pro Leu Ser Leu Gly Ser Ser Ile Gln Pro Leu Ser Gln Gln Arg
 50 55 60
 Gln Asp Cys Gly Pro Leu Cys Phe Leu Asn Arg Ala Gln Gly Ser Gln
 65 70 75 80
 Gly Met Pro Ser Leu Gln His Ser Thr Leu Trp Ser Gln Trp Ser Arg
 85 90 95
 Arg Ser Ser Leu Lys Tyr Tyr Tyr Arg Gly Glu Arg Pro Ile Leu Ala
 100 105 110
 Met Leu Leu Tyr Leu Pro Arg Pro Lys Thr Val Leu Cys Ser Phe Ser
 115 120 125
 Cys Ser Glu Ile Arg Ser Gln Asn Ser Arg Arg His Ser Phe Gly Lys
 130 135 140
 Lys Gly His Ala Phe Val Leu Tyr Leu Ile Leu Val Ser Glu Ala Leu
 145 150 155 160
 Ile Pro Val Asp Cys Gly Leu Arg Trp Ser Pro Pro Gln Asp Pro Gln
 165 170 175
 Leu Gln Arg Gln Arg Arg Met Lys Glu Glu Gln Pro Pro Gln Asp Leu
 180 185 190
 Leu His Trp Glu Pro His Pro Thr Phe Ser Val Pro Phe Thr Arg
 195 200 205

<210> 4455
 <211> 882

<212> DNA

<213> Homo sapiens

<400> 4455

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 aagctgttca ttgggcagat ccccgcaac ctggatgaga aggacctcaa gcccctcttc
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 882

<210> 4456

<211> 261

<212> PRT

<213> Homo sapiens

<400> 4456

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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Arg Phe Thr Gly Met His Lys
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 Gly Cys Ala Phe Leu Thr Tyr Cys Glu Arg Glu Ser Ala Leu Lys Ala
 50 55 60
 Gln Ser Ala Leu His Glu Gln Lys Thr Leu Pro Gly Met Asn Arg Pro
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<210> 4457
<211> 1491
<212> DNA
<213> Homo sapiens
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<400> 4457
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<210> 4458

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4458

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			20					25					30		
Lys	Gly	Gly	Tyr	Leu	Met	Leu	Ser	Phe	Ile	Asp	Phe	Cys	Pro	Phe	Ser
			35				40					45			
Val	Met	Arg	Leu	Arg	Ser	Leu	Pro	Ser	Pro	Gln	Arg	Tyr	Thr	Arg	Gln
			50				55				60				
Glu	Arg	Tyr	Arg	Ala	Arg	Pro	Pro	Arg	Val	Leu	Glu	Arg	Ser	Gly	Phe
65					70				75					80	
His	Asn	Glu	Asn	Ser	Leu	Ala	Ile	Tyr	Gln	Gly	Leu	Val	Tyr	Tyr	Leu
			85					90					95		
Leu	Trp	Leu	His	Ser	Val	Tyr	Asp	Lys	Asp	Tyr	Tyr	Phe	Phe	Leu	Ala
			100					105					110		
Ser	Asn	Trp	Arg	Ser	Ala	Gly	Gly	Val	Ser	Ile	Glu	Met	Asp	Ser	Tyr
			115				120					125			
Glu	Lys	Ile	Tyr	Asn	Leu	Glu	Ser	Ala	Tyr	Glu	Leu	Pro	Glu	Arg	Ile
			130				135					140			
Phe	Leu	Asp	Lys	Gly	Thr	Glu	Tyr	Ser	Phe	Ala	Ile	Phe	Leu	Ser	Ala
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Arg	Val	Glu	Pro	Glu	Gly	Arg	Gly	Glu	Gly	Tyr	Gln	Asn	Leu	Gly	Ala

180 185 190
 Trp Gly Ala Gly Thr Pro Ser Glu Gly Arg Gly Leu Ser Val Asp Val
 195 200 205
 Gly Val Val Leu Ala Asp Pro Gly Cys Ile Glu Ala Ser Val Lys Gln
 210 215 220
 Glu Val Leu Ile Asn Arg Asn Ser Val Leu Phe Ser Ile Thr Leu Lys
 225 230 235 240
 Asp Lys Lys Leu Cys Tyr Asp Gln Gly Ile Ser Gly His His Leu Met
 245 250 255
 Glu Thr Ser Met Thr Val Asn Val Arg Ser Lys Pro Gly Gly Glu Gly
 260 265 270
 Lys Arg Leu Ala Phe Asp Ile Thr Tyr Thr Leu Glu Tyr Ser Arg Leu
 275 280 285
 Lys Asn Lys His Tyr Phe Asp Cys Val Asn Val Asn Pro Glu Met Pro
 290 295 300
 Cys Phe Leu Phe Arg Asp Ser Val Tyr Val Leu Leu Val Val Gly Gly
 305 310 315 320
 Gly Pro Thr Leu Asp Ser Leu Lys Asp Tyr Ser Glu Asp Glu Ile Tyr
 325 330 335
 Arg Phe Asn Ser Pro Leu Asp Lys Thr Asn Ser Leu Ile Trp Thr Thr
 340 345 350
 Arg Thr Thr Arg Thr Thr Lys Asp Ser Ala Phe His Ile Met Ser His
 355 360 365
 Glu Ser Pro Gly Ile Glu Trp Leu Cys Leu Glu Asn Ala Pro Cys Tyr
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<210> 4459

<211> 1114

<212> DNA

<213> Homo sapiens

<400> 4459

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<210> 4460

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4460

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			20					25					30		
Gly	Lys	Glu	Arg	Ala	Ala	Pro	Ser	Gln	Gly	Ser	Pro	Arg	Cys	Cys	Pro
		35					40					45			
Leu	Ser	Pro	Gly	Ser	Ala	Arg	Gly	Ala	Arg	Gly	Glu	Asn	Gln	Pro	Arg
		50				55					60				
Ser	Arg	Gly	Arg	Ala	Ala	Asn	Gly	Arg	Ala	Pro	Pro	Gly	Pro	Leu	Thr
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Arg	Arg	Leu	Ala	Gly	Arg	Ala	Arg	Thr	Pro	Arg	Pro	Lys	Trp	Leu	Phe
				85				90					95		
Gln	Gly	Ala	Ser	Gln	Ala	Gly	Glu	Leu	Gly	Lys	Gln	Arg	Arg	Met	Pro
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<210> 4461

<211> 488

<212> DNA

<213> Homo sapiens

<400> 4461

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 <211> 96
 <212> PRT
 <213> Homo sapiens

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 Ser Ser Asn Lys Glu Asn Phe Ile Tyr Leu Ala Asp Phe Pro Lys Glu
 35 40 45
 Leu Ser Ile Lys Tyr Met Ala Arg Ser Phe Arg Gly Ala Val Ala Ile
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 Val Thr Glu Thr Glu Glu Val Gly Cys Pro Ala Leu Leu Pro Ile Pro
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<210> 4463
 <211> 2662
 <212> DNA
 <213> Homo sapiens

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<210> 4464

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4464

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		20						25					30		
Val	Arg	Asp	Val	Ala	Lys	Met	Leu	Pro	Thr	Leu	Gly	Gly	Glu	Glu	Gly
		35					40					45			
Val	Ser	Arg	Ile	Tyr	Ala	Asp	Pro	Thr	Lys	Arg	Leu	Glu	Leu	Tyr	Phe
		50				55					60				
Arg	Pro	Lys	Asp	Pro	Tyr	Cys	His	Pro	Val	Cys	Ala	Asn	Arg	Phe	Ser
65					70				75					80	
Thr	Ser	Ser	Leu	Leu	Leu	Arg	Ile	Arg	Lys	Arg	Thr	Arg	Arg	Gln	Lys
			85					90						95	
Gly	Val	Leu	Gly	Thr	Glu	Ala	His	Ser	Glu	Val	Thr	Phe	Asp	Met	Glu
		100						105					110		
Ile	Leu	Gly	Ile	Ile	Ser	Thr	Ile	Tyr	Lys	Phe	Gln	Gly	Met	Ser	Asp
		115					120					125			
Phe	Gln	Tyr	Leu	Ala	Val	His	Thr	Glu	Ala	Gly	Gly	Lys	His	Thr	Ser
		130				135					140				
Met	Tyr	Asp	Lys	Val	Leu	Met	Leu	Arg	Pro	Glu	Lys	Glu	Ala	Phe	Phe
145					150					155				160	
His	Gln	Glu	Leu	Pro	Leu	Tyr	Ile	Pro	Pro	Pro	Ile	Phe	Ser	Arg	Leu
			165					170						175	
Asp	Ala	Pro	Val	Asp	Tyr	Phe	Tyr	Arg	Pro	Glu	Thr	Gln	His	Arg	Glu
			180					185					190		
Gly	Tyr	Asn	Asn	Pro	Pro	Ile	Ser	Gly	Glu	Asn	Leu	Ile	Gly	Leu	Ser

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Glu Val Pro Lys Gln Pro Leu Glu Ala Ala Ala Gln Thr Trp Arg Arg
  225              230              235              240
Val Cys Thr Asn Pro Val Asp Arg Lys Val Glu Glu Glu Leu Arg Lys
      245              250              255
Leu Phe Asp Ile Arg Pro Ile Trp Ser Arg Asn Ala Val Lys Ala Asn
      260              265              270
Ile Ser Val His Pro Asp Lys Leu Lys Val Leu Leu Pro Phe Ile Ala
      275              280              285
Tyr Tyr Met Ile Thr Gly Pro Trp Arg Ser Leu Trp Ile Arg Phe Gly
      290              295              300
Tyr Asp Pro Arg Lys Asn Pro Asp Ala Lys Ile Tyr Gln Val Leu Asp
  305              310              315              320
Phe Arg Ile Arg Cys Gly Met Lys His Gly Tyr Ala Pro Ser Asp Leu
      325              330              335
Pro Val Lys Ala Lys Arg Ser Thr Tyr Asn Tyr Ser Leu Pro Ile Thr
      340              345              350
Val Lys Lys Thr Ser Ser Gln Leu Val Thr Met His Asp Leu Lys Gln
      355              360              365
Gly Leu Gly Arg Ser Gly Thr Ser Gly Ala Arg Lys Pro Ala Ser Ser
      370              375              380
Lys Tyr Lys Leu Lys Asp Ser Val Tyr Ile Phe Arg Glu Gly Ala Leu
  385              390              395              400
Pro Pro Tyr Arg Gln Met Phe Tyr Gln Leu Cys Asp Leu Asn Val Glu
      405              410              415
Glu Leu Gln Lys Ile Ile His Arg Asn Asp Gly Ala Glu Asn Ser Cys
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Thr Glu Arg Asp Gly Trp Cys Leu Pro Lys Thr Ser Asp Glu Leu Arg
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Asp Thr Met Ser Leu Met Ile Arg Gln Thr Ile Arg Ser Lys Arg Pro
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Ala Leu Phe Ser Ser Ser Ala Lys Ala Asp Gly Gly Lys Glu Gln Leu
  465              470              475              480
Thr Tyr Glu Ser Gly Glu Asp Glu Glu Asp Glu Glu Glu Glu Glu
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<210> 4465

<211> 1291

<212> DNA

<213> Homo sapiens

<400> 4465

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180

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<210> 4466

<211> 93

<212> PRT

<213> Homo sapiens

<400> 4466

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Leu	Arg	Gln	Met	Val	Gly	Glu	Arg	Tyr	Arg	Asp	Leu	Ile	Glu	Ala	Xaa
			20					25						30	
Asp	Thr	Ile	Gly	Gln	Met	Arg	Arg	Xaa	Ala	Val	Gly	Leu	Val	Asp	Ala
			35					40						45	
Val	Lys	Ala	Thr	Asp	Gln	Tyr	Cys	Ala	Arg	Leu	Arg	Gln	Ala	Gly	Ser
			50					55						60	
Ala	Ala	Pro	Arg	Pro	Pro	Arg	Ala	Gln	Gln	Pro	Gln	Gln	Pro	Ser	Gln

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<210> 4467
 <211> 1142
 <212> DNA
 <213> Homo sapiens

<400> 4467
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 gt
 1142

<210> 4468
 <211> 170
 <212> PRT

<213> Homo sapiens

<400> 4468

Xaa Asp Val Pro Lys Val Glu Val Leu Glu Arg Glu Leu Ala Trp Leu
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 Lys Glu His Leu Ser Gln Leu Glu Ser Pro Val Val Phe Cys His Asn
 20 25 30
 Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asp Ser Ile Lys Gly His Val
 35 40 45
 Arg Phe Ile Asp Tyr Glu Tyr Ala Gly Tyr Asn Tyr Gln Ala Phe Asp
 50 55 60
 Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Asn Glu Val Asp Tyr
 65 70 75 80
 Cys Leu Tyr Pro Ala Arg Glu Thr Gln Leu Gln Trp Leu His Tyr Tyr
 85 90 95
 Leu Gln Ala Gln Lys Gly Met Ala Val Thr Pro Arg Glu Val Gln Arg
 100 105 110
 Leu Tyr Val Gln Val Asn Lys Phe Ala Leu Ala Ser His Phe Phe Trp
 115 120 125
 Ala Leu Trp Ala Leu Ile Gln Asn Gln Tyr Ser Thr Ile Asp Phe Asp
 130 135 140
 Phe Leu Arg Tyr Ala Val Ile Arg Phe Asn Gln Tyr Phe Lys Val Lys
 145 150 155 160
 Pro Gln Ala Ser Ala Leu Glu Met Pro Lys
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<210> 4469

<211> 409

<212> DNA

<213> Homo sapiens

<400> 4469

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 180
 gtgctttaga ggccctctgc gagccttggt tttgaagctt taacaggcct ccctcccatc
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<210> 4470

<211> 55

<212> PRT

<213> Homo sapiens

<400> 4470

Ile Tyr Asp Ala Gln His Ala Asn Leu Ala Gly Thr Leu Ser Gly His

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Ala Ser Trp	Val Leu Asn Val Ala Phe Cys Pro Asp Asp Thr His Phe		
	20	25	30
Val Ser Arg	Ser Gln Cys Trp Ser Gly Leu Gly Trp Pro Arg Gln Leu		
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Glu Ser Arg Arg Trp Thr Thr			
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<210> 4471

<211> 1771

<212> DNA

<213> Homo sapiens

<400> 4471

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 180
 ctaatggccg ggtctggcca cggctcccagt gtccctgggc agccctccga ggggcccggca
 240
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 480
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 660
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 780
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 840
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 1080
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 1200

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 1320
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 1380
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 1440
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 1620
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 1771

<210> 4472
 <211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4472
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 Ala Pro Leu Pro Gly Leu Ser Ala Pro Gly Arg Leu Phe Asp Gln Arg
 20 25 30
 Phe Gly Glu Gly Leu Leu Glu Ala Glu Leu Ala Leu Cys Pro Thr
 35 40 45
 Thr Leu Ala Pro Tyr Tyr Leu Arg Ala Pro Ser Val Ala Leu Pro Val
 50 55 60
 Ala Gln Val Pro Thr Asp Pro Gly His Phe Ser Val Leu Leu Asp Val
 65 70 75 80
 Lys His Phe Ser Pro Glu Glu Ile Ala Val Lys Val Val Gly Glu His
 85 90 95
 Val Glu Val His Ala Arg His Glu Glu Arg Pro Asp Glu His Gly Phe
 100 105 110
 Val Ala Arg Glu Phe His Arg Arg Tyr Arg Leu Pro Pro Gly Val Asp
 115 120 125
 Pro Ala Ala Val Thr Ser Ala Leu Ser Pro Glu Gly Val Leu Ser Ile
 130 135 140
 Gln Ala Ala Pro Ala Ser Ala Gln Ala Pro Pro Pro Ala Ala Ala Lys
 145 150 155 160

<210> 4473
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4473

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 ttggttaagg aaatgaccaa ccagtacggg attctcttca aacaagagca agcccatgat
 180
 gatgccattt ggtcagttgc ttgggggaca aacaagaagg aaaactctga gacagtggtc
 240
 acaggctccc tagatgacct ggtgaaggtc tggaaatggc gtgatgagag gctggacctg
 300
 cagtggagtc tggagggaca tcagctggga gtggtgtctg tggacatcag ccacaccctt
 360
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 420
 aaacagatga agtctataga tgcaggaccg gtggatgcct ggactttggc attctctccg
 480
 gactcccagc atctggcaac aggaactcac atggggaaag tgaacatttt tgggtgtggaa
 540
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 600
 agtcctgatg gaaaatacct ggccagcgga gccatagatg gaatcatcaa tatttttgat
 660
 attgcaactg gaaaacttct gcataccctg gaaggccatg ccatgcccat tcgctccttg
 720
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 780
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 1020
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 agcatttatt gtagcaaaga cttaaatttt gtagatacaa tatgaatctt ttcattgttt
 1200
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 1255

<210> 4474

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4474

Met	Thr	Asn	Gln	Tyr	Gly	Ile	Leu	Phe	Lys	Gln	Glu	Gln	Ala	His	Asp
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Asp	Ala	Ile	Trp	Ser	Val	Ala	Trp	Gly	Thr	Asn	Lys	Lys	Glu	Asn	Ser
		20						25					30		
Glu	Thr	Val	Val	Thr	Gly	Ser	Leu	Asp	Asp	Leu	Val	Lys	Val	Trp	Lys

35 40 45
 Trp Arg Asp Glu Arg Leu Asp Leu Gln Trp Ser Leu Glu Gly His Gln
 50 55 60
 Leu Gly Val Val Ser Val Asp Ile Ser His Thr Leu Pro Ile Ala Ala
 65 70 75 80
 Ser Ser Ser Leu Asp Ala His Ile Arg Leu Trp Asp Leu Glu Asn Gly
 85 90 95
 Lys Gln Met Lys Ser Ile Asp Ala Gly Pro Val Asp Ala Trp Thr Leu
 100 105 110
 Ala Phe Ser Pro Asp Ser Gln His Leu Ala Thr Gly Thr His Met Gly
 115 120 125
 Lys Val Asn Ile Phe Gly Val Glu Ser Gly Lys Lys Glu Tyr Ser Leu
 130 135 140
 Asp Thr Arg Gly Lys Phe Ile Leu Ser Ile Ala Tyr Ser Pro Asp Gly
 145 150 155 160
 Lys Tyr Leu Ala Ser Gly Ala Ile Asp Gly Ile Ile Asn Ile Phe Asp
 165 170 175
 Ile Ala Thr Gly Lys Leu Leu His Thr Leu Glu Gly His Ala Met Pro
 180 185 190
 Ile Arg Ser Leu Thr Phe Ser Pro Asp Ser Gln Leu Leu Val Thr Ala
 195 200 205
 Ser Asp Asp Gly Tyr Ile Lys Ile Tyr Asp Val Gln His Ala Asn Leu
 210 215 220
 Ala Gly Thr Leu Ser Gly His Ala Ser Trp Val Leu Asn Val Ala Phe
 225 230 235 240
 Cys Pro Asp Asp Thr His Phe Val Ser Ser Ser Asp Lys Ser Val
 245 250 255
 Lys Val Trp Asp Val Gly Thr Arg Thr Cys Val His Thr Phe Phe Asp
 260 265 270
 His Gln Asp Gln Val Trp Gly Val Lys Tyr Asn Gly Asn Gly Ser Lys
 275 280 285
 Ile Val Ser Val Gly Asp Asp Gln Glu Ile His Ile Tyr Asp Cys Pro
 290 295 300
 Ile
 305

<210> 4475

<211> 475

<212> DNA

<213> Homo sapiens

<400> 4475

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 180
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 360

ccactttctga gggctggagg gacaggaact tcctttcttc cccctttctg tctcctcgcg
 420
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 475

<210> 4476
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 4476
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 Gly Leu His Pro Gly Gly Gly Leu Arg Ala Ala Gly Arg Gln Gln Met
 20 25 30
 Ser Arg Arg Ser Ser Ser Ser Gln Pro Leu Pro Gln Ser Ala Arg Thr
 35 40 45
 Gly His Thr Glu Gly Ser Val Ala Leu His Gly Ser Pro Ala Ser Arg
 50 55 60
 Gln Thr Ser Gln Arg Trp Thr Val Cys Gln Gly Trp Asp Trp Asn Ser
 65 70 75 80
 Arg Arg Ser Leu Asp Thr Ser Gly Ile Arg Glu Thr Ser Leu Gly Arg
 85 90 95
 Tyr Pro Leu Pro Ser Ser Arg Val His Ala
 100 105

<210> 4477
 <211> 1153
 <212> DNA
 <213> Homo sapiens

<400> 4477
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 120
 taggccaggg cagatgggat atgacgaatg gactgccagc tggatacaag gatgctcacc
 180
 aagcaccaag ttctcacaag ttattttatg tgactttgca ggaactgagg cattatatct
 240
 gaggacacca ggggaaaagt gtggcatctc agggaaatac agccctgggc tgtgtctaca
 300
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 360
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 420
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 1153

<210> 4478

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4478

Met	Trp	Lys	Arg	Gly	Glu	Val	Gly	Lys	Ile	Lys	Glu	Cys	Leu	Glu	Gly
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Lys	Thr	Glu	Tyr	Gln	Glu	Ser	Glu	Phe	Leu	Ser	Pro	Ala	Tyr	Ser	Asp
		20						25					30		
Lys	Pro	Leu	Gly	Leu	Cys	Glu	Asn	Ala	Asp	Val	Leu	Asp	Arg	Arg	Leu
		35					40					45			
Trp	Glu	Gly	Asn	Met	Lys	Glu	Glu	Asn	Asn	Asn	Glu	Ser	Lys	Ser	Thr
		50					55				60				
Ser	Ile	Pro	Gly	His	Phe	Ile	His	Phe	Gln	Asp	Tyr	Cys	Ala	Pro	Ile
65				70					75					80	
Ser	Thr	Leu	Met	Val	Cys	Val	Asp	Thr	Ala	Gln	Gly	Cys	Ile	Ser	Leu
				85					90					95	
Arg	Cys	His	Thr	Phe	Pro	Leu	Val	Ser	Ser	Asp	Ile	Met	Pro	Gln	Phe
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Leu	Gln	Ser	His	Ile	Lys										
				115											

<210> 4479

<211> 2158

<212> DNA

<213> Homo sapiens

<400> 4479

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 120
 ggcggccccc gcgcagcaca gggagagatg agcagcacca gcagtaagag ggctccgacc
 180

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240
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<210> 4480

<211> 308

<212> PRT

<213> Homo sapiens

<400> 4480

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Gly	Cys	Phe	Gly	Arg	Gly	Pro	Arg	Phe	Ser	Ala	Pro	Cys	Ser	Gly	Leu
		20					25						30		
Asp	Tyr	Gly	Glu	Pro	Glu	Arg	Gly	Gly	Gly	Pro	Arg	Ala	Ala	Gln	Gly
	35					40					45				
Glu	Met	Ser	Ser	Thr	Ser	Ser	Lys	Arg	Ala	Pro	Thr	Thr	Ala	Thr	Gln
	50					55					60				
Arg	Leu	Lys	Gln	Asp	Tyr	Leu	Arg	Ile	Lys	Lys	Asp	Pro	Val	Pro	Tyr
65				70					75					80	
Ile	Cys	Ala	Glu	Pro	Leu	Pro	Ser	Asn	Ile	Leu	Glu	Trp	His	Tyr	Val
			85						90					95	
Val	Arg	Gly	Pro	Glu	Met	Thr	Pro	Tyr	Glu	Gly	Gly	Tyr	Tyr	His	Gly
			100					105						110	
Lys	Leu	Ile	Phe	Pro	Arg	Glu	Phe	Pro	Phe	Lys	Pro	Pro	Ser	Ile	Tyr
		115					120						125		
Met	Ile	Thr	Pro	Asn	Gly	Arg	Phe	Lys	Cys	Asn	Thr	Arg	Leu	Cys	Leu
			130			135						140			
Ser	Ile	Thr	Asp	Phe	His	Pro	Asp	Thr	Trp	Asn	Pro	Ala	Trp	Ser	Val
145					150					155				160	
Ser	Thr	Ile	Leu	Thr	Gly	Leu	Leu	Ser	Phe	Met	Val	Glu	Lys	Gly	Pro
			165						170					175	
Thr	Leu	Gly	Ser	Ile	Glu	Thr	Ser	Asp	Phe	Thr	Lys	Arg	Gln	Leu	Ala
			180					185					190		
Val	Gln	Ser	Leu	Ala	Phe	Asn	Leu	Lys	Asp	Lys	Val	Phe	Cys	Glu	Leu
		195					200					205			
Phe	Pro	Glu	Val	Val	Glu	Glu	Ile	Lys	Gln	Lys	Gln	Lys	Ala	Gln	Asp
	210					215						220			
Glu	Leu	Ser	Ser	Arg	Pro	Gln	Thr	Leu	Pro	Leu	Pro	Asp	Val	Val	Pro
225				230						235				240	
Asp	Gly	Glu	Thr	His	Leu	Val	Gln	Asn	Gly	Ile	Gln	Leu	Leu	Asn	Gly
			245						250					255	
His	Ala	Pro	Gly	Ala	Val	Pro	Asn	Leu	Ala	Gly	Leu	Gln	Gln	Ala	Asn
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240
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<210> 4484

<211> 452

<212> PRT

<213> Homo sapiens

<400> 4484

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		20						25					30		
Lys	Pro	Leu	Ile	Trp	Tyr	Pro	Leu	Asn	Leu	Leu	Glu	Arg	Val	Gly	Phe
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Glu	Glu	Val	Ile	Val	Val	Thr	Thr	Arg	Asp	Val	Gln	Lys	Ala	Leu	Cys
	50					55				60					
Ala	Glu	Phe	Lys	Met	Lys	Met	Lys	Pro	Asp	Ile	Val	Cys	Ile	Pro	Asp
65				70					75					80	
Asp	Ala	Asp	Met	Gly	Thr	Ala	Asp	Ser	Leu	Arg	Tyr	Ile	Tyr	Pro	Lys
			85					90						95	
Leu	Lys	Thr	Asp	Val	Leu	Val	Leu	Ser	Cys	Asp	Leu	Ile	Thr	Asp	Val
		100						105					110		
Ala	Leu	His	Glu	Val	Val	Asp	Leu	Phe	Arg	Ala	Tyr	Asp	Ala	Ser	Leu
	115						120					125			
Ala	Met	Leu	Met	Arg	Lys	Gly	Gln	Asp	Ser	Ile	Glu	Pro	Val	Pro	Gly
	130					135					140				
Gln	Lys	Gly	Lys	Lys	Lys	Ala	Val	Glu	Gln	Arg	Asp	Phe	Ile	Gly	Val
145				150					155					160	
Asp	Ser	Thr	Gly	Lys	Arg	Leu	Leu	Phe	Met	Ala	Asn	Glu	Ala	Asp	Leu
			165					170						175	
Asp	Glu	Glu	Leu	Val	Ile	Lys	Gly	Ser	Ile	Leu	Gln	Lys	His	Pro	Arg
	180						185						190		
Ile	Arg	Phe	His	Thr	Gly	Leu	Val	Asp	Ala	His	Leu	Tyr	Cys	Leu	Lys
	195					200						205			
Lys	Tyr	Ile	Val	Asp	Phe	Leu	Met	Glu	Asn	Gly	Ser	Ile	Thr	Ser	Ile
	210					215					220				
Arg	Ser	Glu	Leu	Ile	Pro	Tyr	Leu	Val	Arg	Lys	Gln	Phe	Ser	Ser	Ala
225				230					235					240	
Ser	Ser	Gln	Gln	Gly	Gln	Glu	Glu	Lys	Glu	Glu	Asp	Leu	Lys	Lys	Lys
			245						250					255	
Glu	Leu	Lys	Ser	Leu	Asp	Ile	Tyr	Ser	Phe	Ile	Lys	Glu	Ala	Asn	Thr
		260					265						270		
Leu	Asn	Leu	Ala	Pro	Tyr	Asp	Ala	Cys	Trp	Asn	Ala	Cys	Arg	Gly	Asp
	275					280						285			
Arg	Trp	Glu	Asp	Leu	Ser	Arg	Ser	Gln	Val	Arg	Cys	Tyr	Val	His	Ile
	290					295					300				
Met	Lys	Glu	Gly	Leu	Cys	Ser	Arg	Val	Ser	Thr	Leu	Gly	Leu	Tyr	Met
305				310					315					320	
Glu	Ala	Asn	Arg	Gln	Val	Pro	Lys	Leu	Leu	Ser	Ala	Leu	Cys	Pro	Glu

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          325          330          335
Glu Pro Pro Val His Ser Ser Ala Gln Ile Val Ser Lys His Leu Val
          340          345          350
Gly Val Asp Ser Leu Ile Gly Pro Glu Thr Gln Ile Gly Glu Lys Ser
          355          360          365
Ser Ile Lys Arg Ser Val Ile Gly Ser Ser Cys Leu Ile Lys Asp Arg
          370          375          380
Val Thr Ile Thr Asn Cys Leu Leu Met Asn Ser Val Thr Val Glu Glu
          385          390          395          400
Gly Ser Asn Ile Gln Gly Ser Val Ile Cys Asn Asn Ala Val Ile Glu
          405          410          415
Lys Gly Ala Asp Ile Lys Asp Cys Leu Ile Gly Ser Gly Gln Arg Ile
          420          425          430
Glu Ala Lys Ala Lys Arg Val Asn Glu Val Ile Val Gly Asn Asp Gln
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Leu Met Glu Ile
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<210> 4485
 <211> 513
 <212> DNA
 <213> Homo sapiens

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513

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<210> 4486
 <211> 100
 <212> PRT
 <213> Homo sapiens

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<400> 4486
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Ser Ile Ser Leu Pro Ser Gly Ala Pro Gly Gly Gln Gly Asp Leu Leu

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          35          40          45
Pro Gln Ala Val Pro His Leu Ile Pro Lys Val Ser Ser Asn Glu Val
      50          55          60
Asp Ser Phe Lys Tyr Trp Trp Phe Trp Leu Ala Arg Val Ser Glu Gly
65          70          75          80
Thr Glu Lys Thr Pro Lys Cys Arg Val Cys Asp Thr Ala Gln Ser Ser
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Pro Met Pro Asn
          100

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<210> 4487
 <211> 387
 <212> DNA
 <213> Homo sapiens

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120
ggaaagttag atattttatt caatagagtt caagcaattc agaagaaaag tggaaacttt
180
gatctgctgt tgtgtgtagg aaatttcttt ggctccaccc aagatgctga atgggaggag
240
tataagactg gcatcaagaa agctcctatt cagacatatg tgcttgggtc taataaccag
300
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ctgggtcgta aaggtatctt cactgga
387

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<210> 4488
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 4488
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Gln Ser Gln Pro Ile Leu Phe Gly Gln Met Ala Gln Lys Pro Leu Arg
          20          25          30
Leu Leu Ala Cys Gly Asp Val Glu Gly Lys Phe Asp Ile Leu Phe Asn
          35          40          45
Arg Val Gln Ala Ile Gln Lys Lys Ser Gly Asn Phe Asp Leu Leu Leu
50          55          60
Cys Val Gly Asn Phe Phe Gly Ser Thr Gln Asp Ala Glu Trp Glu Glu
65          70          75          80
Tyr Lys Thr Gly Ile Lys Lys Ala Pro Ile Gln Thr Tyr Val Leu Gly
          85          90          95
Ala Asn Asn Gln Glu Thr Val Lys Tyr Phe Gln Asp Ala Asp Gly Cys
          100          105          110
Glu Leu Ala Glu Asn Ile Thr Tyr Leu Gly Arg Lys Gly Ile Phe Thr
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Gly

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<210> 4489
<211> 2390
<212> DNA
<213> Homo sapiens

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gagccagggtg cctatatctt tctccagaac cccccaggtc tgcctagcat tgctgtctgc
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240
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300
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<210> 4490

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4490

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 35 40 45
 Gln Asn Pro Pro Gly Leu Pro Ser Ile Ala Val Cys Trp Phe Val Gly
 50 55 60
 Cys Leu Cys Gly Ser Lys Leu Val Ile Asp Trp His Asn Tyr Gly Tyr
 65 70 75 80
 Ser Ile Met Gly Leu Val His Gly Pro Asn His Pro Leu Val Leu Leu
 85 90 95
 Ala Lys Trp Tyr Glu Lys Phe Phe Gly Arg Leu Ser His Leu Asn Leu


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Cys Val Thr Asn Ala Met Arg Glu Asp Leu Ala Asp Asn Trp His Ile
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Arg Ala Val Thr Val Tyr Asp Lys Pro Ala Ser Phe Phe Lys Glu Thr
      130      135      140
Pro Leu Asp Leu Gln His Arg Leu Phe Met Lys Leu Gly Ser Met His
145      150      155      160
Ser Pro Phe Arg Ala Arg Ser Glu Pro Glu Asp Pro Val Thr Glu Arg
      165      170      175
Ser Ala Phe Thr Glu Arg Asp Ala Gly Ser Gly Leu Val Thr Arg Leu
      180      185      190
Arg Glu Arg Pro Ala Leu Leu Val Ser Ser Thr Ser Trp Thr Glu Asp
      195      200      205
Glu Asp Phe Ser Ile Leu Leu Ala Ala Leu Glu Lys Phe Glu Gln Leu
      210      215      220
Thr Leu Asp Gly His Asn Leu Pro Ser Leu Val Cys Val Ile Thr Gly
225      230      235      240
Lys Gly Pro Leu Arg Glu Tyr Tyr Ser Arg Leu Ile His Gln Lys His
      245      250      255
Phe Gln His Ile Gln Val Cys Thr Pro Trp Leu Glu Ala Glu Asp Tyr
      260      265      270
Pro Leu Leu Leu Gly Ser Ala Asp Leu Gly Val Cys Leu His Thr Ser
      275      280      285
Ser Ser Gly Leu Asp Leu Pro Met Lys Val Val Asp Met Phe Gly Cys
      290      295      300
Cys Leu Pro Val Cys Ala Val Asn Phe Lys Cys Leu His Glu Leu Val
305      310      315      320
Lys His Glu Glu Asn Gly Leu Val Phe Glu Asp Ser Glu Glu Leu Ala
      325      330      335
Ala Gln Leu Gln Met Leu Phe Ser Asn Phe Pro Asp Pro Ala Gly Lys
      340      345      350
Leu Asn Gln Phe Arg Lys Asn Leu Arg Glu Ser Gln Gln Leu Arg Trp
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<210> 4491

<211> 6712

<212> DNA

<213> Homo sapiens

<400> 4491

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360

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<211> 674

<212> PRT

<213> Homo sapiens

<400> 4492

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Gln Lys Asp Ile Lys Asp Leu Gly Gly Arg Val Glu Glu Phe Leu Ser
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Gln Thr Leu Gly Arg Ile Ser Pro Val Pro Ser Pro Glu Ser Ala Tyr
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Gly Pro Ala Ile Lys Ala Leu Ser Leu Ser Thr Phe Trp Tyr Leu Val
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<211> 560

<212> PRT

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<400> 4496

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3680

<400> 4498

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Ala Gln Val Ala Leu Thr Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe
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Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala
      210              215              220
Ala Val Phe Gln Glu Thr Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala
225              230              235              240
Arg Glu Leu Arg Ser Cys Leu Leu His Leu Thr Leu Gln Gly Gln Arg
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Gly Gly Ile Cys Ala Pro Pro Leu Ser Pro Gly Ala Leu Gln Pro Leu
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Pro His Ala Glu Leu Ala Pro Ser
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<210> 4499

<211> 562

<212> DNA

<213> Homo sapiens

<400> 4499

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<210> 4500
<211> 91
<212> PRT
<213> Homo sapiens

<400> 4500
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35 40 45
Ser Leu Cys Gly Asp Trp Leu Gln Gly Leu His Arg Phe Val Ala Arg
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Glu Lys Ile Met Ser Val Leu Ser Glu Arg Gly Leu Phe Arg Gly Leu
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Gln Asn His Pro Met Val Leu Pro Ile Cys Arg
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<210> 4501
<211> 1866
<212> DNA
<213> Homo sapiens

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<210> 4502

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4502

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		20						25					30		
Phe	Asp	Glu	Thr	Ile	Val	Asp	Glu	Asn	Ser	Asp	Asp	Ser	Ile	Val	Arg
		35					40					45			
Ala	Ala	Pro	Gly	Gln	Arg	Leu	Pro	Glu	Ser	Leu	Arg	Ala	Thr	Tyr	Arg
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Pro Leu Ser Pro Gly Met Ser Asp Leu Leu Gln Phe Val Ala Lys Gln
          100          105          110
Gly Ala Cys Phe Glu Val Ile Leu Ile Ser Asp Ala Asn Thr Phe Gly
          115          120          125
Val Glu Ser Ser Leu Arg Ala Ala Gly His His Ser Leu Phe Arg Arg
          130          135          140
Ile Leu Ser Asn Pro Ser Gly Pro Asp Ala Arg Gly Leu Leu Ala Leu
145          150          155          160
Arg Pro Phe His Thr His Ser Cys Ala Arg Cys Pro Ala Asn Met Cys
          165          170          175
Lys His Lys Val Leu Ser Asp Tyr Leu Arg Glu Arg Ala His Asp Gly
          180          185          190
Val His Phe Glu Arg Leu Phe Tyr Val Gly Asp Gly Ala Asn Asp Phe
          195          200          205
Cys Pro Met Gly Leu Leu Ala Gly Gly Asp Val Ala Phe Pro Arg Arg
          210          215          220
Gly Tyr Pro Met His Arg Leu Ile Gln Glu Ala Gln Lys Ala Glu Pro
225          230          235          240
Ser Ser Phe Arg Ala Ser Val Val Pro Trp Glu Thr Ala Ala Asp Val
          245          250          255
Arg Leu His Leu Gln Gln Val Leu Lys Ser Cys
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<210> 4503
 <211> 1983
 <212> DNA
 <213> Homo sapiens

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<400> 4503
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660

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 1983

<210> 4504

<211> 250

<212> PRT

<213> Homo sapiens

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 Lys Lys Ile Ile Glu Thr Lys Met Leu Met Gly Glu Val Met Arg Glu
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 Ala Ala Phe Ser Leu Ala Glu Ala Lys Phe Thr Ala Gly Asp Phe Ser
 65 70 75 80
 Thr Thr Val Ile Gln Asn Val Asn Lys Ala Gln Val Lys Ile Arg Ala
 85 90 95
 Lys Lys Asp Asn Val Ala Gly Val Thr Leu Pro Val Phe Glu His Tyr
 100 105 110
 His Glu Gly Thr Asp Ser Tyr Glu Leu Thr Gly Leu Ala Arg Gly Gly
 115 120 125
 Glu Gln Leu Ala Lys Leu Lys Arg Asn Tyr Ala Lys Ala Val Glu Leu
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 Leu Val Glu Leu Ala Ser Leu Gln Thr Ser Phe Val Thr Leu Asp Glu
 145 150 155 160
 Ala Ile Lys Ile Thr Asn Arg Arg Val Asn Ala Ile Glu His Gly Glu
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 Tyr Val Ile Ile Pro Arg Ile Glu Arg Thr Leu Ala Tyr Ile Ile Thr
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 Glu Leu Asp Glu Arg Glu Arg Glu Glu Phe Tyr Arg Leu Lys Lys Ile
 195 200 205
 Gln Glu Lys Lys Lys Ile Leu Lys Glu Lys Ser Glu Lys Asp Leu Glu
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<210> 4505

<211> 379

<212> DNA

<213> Homo sapiens

<400> 4505

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<210> 4506

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4506

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Arg Arg Gln Trp Trp Leu Trp Leu Ser Ser Leu Ser Asn Gln Ile His
          35           40           45
Pro Thr Pro Ser Ala Gln Gly Gln Ala Ala Leu Arg Gln Thr Cys Pro
          50           55           60
His Leu Arg Glu Ser Gly Pro Leu Ser Val Arg His Val Ala Leu Leu
65           70           75           80
Ala Leu Glu Thr Ala Ser His Pro Ser Gly Pro His Thr Asn Gln Ala
          85           90           95
Pro Ser Pro Ala Thr Ser Pro Lys Cys Pro Ser Glu Pro Ala Thr Pro
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Ser Ser Thr Asp Ser Leu Ile Lys Ile
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<210> 4507

<211> 3664

<212> DNA

<213> Homo sapiens

<400> 4507

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<210> 4508

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4508

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Phe Gly Phe Val Thr Phe Glu Asn Ile Asp Asp Ala Lys Asp Ala Met
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Met Ala Met Asn Gly Lys Ser Val Asp Gly Arg Gln Ile Arg Val Asp
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Gln Ala Gly Lys Ser Ser Asp Asn Arg Ser Arg Gly Tyr Arg Gly Gly
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Ser Ala Gly Gly Arg Gly Phe Phe Arg Gly Gly Arg Gly Arg Gly Arg
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Gly Phe Ser Arg Gly Gly Gly Asp Arg Gly Tyr Gly Gly Asn Arg Phe
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Glu Ser Arg Ser Gly Gly Tyr Gly Gly Ser Arg Asp Tyr Tyr Ser Ser
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<210> 4509
 <211> 11680
 <212> DNA
 <213> Homo sapiens

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Asp	Lys	Gln																		

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Gly Glu Ala Gln Lys Leu Leu Glu Leu Lys Met Glu Ala Glu Lys Ile			
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Val Glu Gln Pro Arg Val Thr Arg Lys Arg Leu Glu Arg Glu Leu Gln			
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Glu Ala Ala Ala Val Pro Thr Thr Pro Arg Arg Gly Arg Pro Pro Lys			
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Thr Arg Arg Arg Ala Asp Glu Glu Glu Glu Asn Glu Ala Lys Glu Pro			
	1555	1560	1565
Ala Glu Thr Leu Lys Pro Pro Glu Gly Trp Arg Ser Pro Arg Ser Gln			
	1570	1575	1580
Lys Thr Ala Ala Gly Gly Gly Pro Gln Gly Lys Lys Gly Lys Asn Glu			
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Pro Lys Val Asp Ala Thr Arg Pro Glu Ala Thr Thr Glu Val Gly Pro			
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<211> 1375

<212> DNA

<213> Homo sapiens

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Ile	Leu	Gln	Pro	Lys	Asn	Glu	Ala	Asp	Arg	Gln	Ala	Glu	Lys	Arg	Glu
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Glu	Leu	Leu	Ala	Arg	Lys	Ile	Leu	Arg	Phe	Asn	Glu	Tyr	Val	Glu	Val
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Thr	Asp	Ala	Gln	Asp	Tyr	Asp	Arg	Arg	Ala	Asp	Lys	Pro	Trp	Thr	Lys

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 Val Gln Lys Phe Thr Glu Asp Leu Val Gly Ser Val Val His Val Leu
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<211> 901

<212> PRT

<213> Homo sapiens

<400> 4516

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Leu	Leu	Gln	Leu	His	Phe	Leu	Ala	Ala	Ala	Thr	Glu	Thr	Pro	Val	Leu
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Phe	His	Leu	Gln	Leu	His	Trp	Ala	Ser	Pro	Leu	Glu	Thr	Leu	Leu	Asp
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Lys Val Trp Ser Leu Arg Arg Asp Pro Arg Gly Ala Pro Ala Trp Ala				
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Ala Ser Ala Trp Pro Pro Pro Gln Gly Ala Gln Val Arg Pro Lys				400
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<210> 4517

<211> 2275

<212> DNA

<213> Homo sapiens

<400> 4517

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<212> PRT

<213> Homo sapiens

<400> 4518

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Gly Lys Gly Gln Ala Gln Val Pro Ser Phe Arg Pro Tyr Leu Leu Thr
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Arg Asp Gln Arg Thr Pro Gln Lys Arg Arg Glu Glu Leu Val Leu Arg
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Ser Val Arg Lys Val Thr Glu His Leu Ser Gly Cys Ile Gln Gln Trp
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<211> 2326
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens

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Thr	Asn	Cys	Lys	Gln	Ala	Glu	Arg	Pro	Asn	Asn	Gln	Gln	Asn	Cys	Phe	35	40	45	
Lys	Val	Cys	Asp	Trp	His	Lys	Glu	Leu	Tyr	Asp	Trp	Arg	Leu	Gly	Pro	50	55	60	
Trp	Asn	Gln	Cys	Gln	Pro	Val	Ile	Ser	Lys	Ser	Leu	Glu	Lys	Pro	Leu	65	70	75	80
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Phe	Glu	Pro	Lys	Pro	Leu	Leu	Glu	Gln	Ala	Cys	Leu	Ile	Pro	Cys	Gln	115	120	125	
Gln	Asp	Cys	Ile	Val	Ser	Glu	Phe	Ser	Ala	Trp	Ser	Glu	Cys	Ser	Lys	130	135	140	
Thr	Cys	Gly	Ser	Gly	Leu	Gln	His	Arg	Thr	Arg	His	Val	Val	Ala	Pro	145	150	155	160
Pro	Gln	Phe	Gly	Gly	Ser	Gly	Cys	Pro	Asn	Leu	Thr	Glu	Phe	Gln	Val	165	170	175	
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Val	Gly	Pro	Trp	Ser	Thr	Cys	Ser	Met	Pro	His	Ser	Arg	Gln	Val	Arg	195	200	205	
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<213> Homo sapiens

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<210> 4522

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4522

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			20					25					30		
His	Thr	Glu	Thr	Ala	Ser	Ser	Phe	Gln	Pro	Ser	Pro	Phe	Ser	Ala	Asp
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Phe	Glu	Leu	Gln	Ile	Ser	Leu	Leu	Tyr	Leu	Glu	Ser	Pro	Ile	Ser	Leu
			50			55				60					
Gln	Glu	Phe	Ala	Leu	Ser	Phe	Ile	Ile	Ile	Leu	Val	Tyr	Val	Leu	Asp
					70					75				80	
Trp	Ala	Ala	Ile	Thr	Arg	Cys	His	Arg	Leu	Ser	Gly	Leu	Asn	Asn	Lys
				85				90					95		
His	Ser	Tyr	Pro	Thr	Val	Thr	Glu	Ala	Glu	Lys	Pro	Gly	Val	Lys	Val
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Pro	Ala	Trp	Ser	Asp	Ser	Val	Leu	Glu	Ala	Gly	Lys	Ser	Lys	Met	Glu
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Ala	Leu	Val	Gly	Leu	Val	Ser	Gly	Arg	Ala	Ser	Leu	Cys	Phe	Gln	Asp

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Gly	Ala	Leu	Ser	Leu	His
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Gln	His	Arg	Arg	Asn	Thr
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<210> 4523

<211> 1022

<212> DNA

<213> Homo sapiens

<400> 4523

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<210> 4524

<211> 262

<212> PRT

<213> Homo sapiens

<400> 4524

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 20 25 30
 Gly Val Ile Phe Met Asn Gly Asn Arg Ala Ser Glu Ala Val Leu Trp
 35 40 45
 Glu Ala Leu Arg Lys Met Gly Leu Arg Pro Gly Val Arg His Pro Phe
 50 55 60
 Leu Gly Asp Leu Arg Lys Leu Ile Thr Asp Asp Phe Val Lys Gln Lys
 65 70 75 80
 Tyr Leu Glu Tyr Lys Lys Ile Pro Asn Ser Asn Pro Pro Glu Tyr Glu
 85 90 95
 Phe Leu Trp Gly Leu Arg Ala Arg His Glu Thr Ser Lys Met Arg Val
 100 105 110
 Leu Arg Phe Ile Ala Gln Asn Gln Asn Arg Asp Pro Arg Glu Trp Lys
 115 120 125
 Ala His Phe Leu Glu Ala Val Asp Asp Ala Phe Lys Thr Met Asp Val
 130 135 140
 Asp Met Ala Glu Glu His Ala Arg Ala Gln Met Arg Ala Gln Met Asn
 145 150 155 160
 Ile Gly Asp Glu Ala Leu Ile Gly Arg Trp Ser Trp Asp Asp Ile Gln
 165 170 175
 Val Glu Leu Leu Thr Trp Asp Glu Asp Gly Asp Phe Gly Asp Ala Trp
 180 185 190
 Ala Arg Ile Pro Phe Ala Phe Trp Ala Arg Tyr His Gln Tyr Ile Leu
 195 200 205
 Asn Ser Asn Arg Ala Asn Arg Arg Ala Thr Trp Arg Ala Gly Val Ser
 210 215 220
 Ser Gly Thr Asn Gly Gly Ala Ser Thr Ser Val Leu Asp Gly Pro Ser
 225 230 235 240
 Thr Ser Ser Thr Ile Arg Thr Arg Asn Ala Ala Arg Ala Gly Ala Ser
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 Phe Phe Ser Trp Ile Gln
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<210> 4525

<211> 1731

<212> DNA

<213> Homo sapiens

<400> 4525

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<210> 4526

<211> 344

<212> PRT

<213> Homo sapiens

<400> 4526

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 35 40 45
 Glu Gln Pro Gly Gln Leu Ile Ser Phe Ser Glu Ala Leu Gln His Phe
 50 55 60
 Gln Thr Val Asp Leu Ser Pro Phe Lys Lys Arg Ile Gln Pro Thr Ile
 65 70 75 80
 Arg Arg Thr Gly Leu Ala Ala Leu Arg His Tyr Leu Phe Gly Pro Pro
 85 90 95
 Lys Leu His Gln Arg Leu Arg Glu Glu Arg Asp Leu Val Leu Thr Ile
 100 105 110
 Ala Gln Cys Gly Leu Asp Ser Gln Asp Pro Val His Gly Arg Val Leu
 115 120 125
 Gln Thr Ile Tyr Lys Lys Leu Thr Gly Ser Lys Phe Asp Cys Ala Leu
 130 135 140
 His Gly Asn His Trp Glu Asp Leu Gly Phe Gln Gly Ala Asn Pro Ala
 145 150 155 160
 Thr Asp Leu Arg Gly Ala Gly Phe Leu Ala Leu Leu His Leu Leu Tyr
 165 170 175
 Leu Val Met Asp Ser Lys Thr Leu Pro Met Ala Gln Glu Ile Phe Arg
 180 185 190
 Leu Ser Arg His His Ile Gln Gln Phe Pro Phe Cys Leu Met Ser Val
 195 200 205
 Asn Ile Thr His Ile Ala Ile Gln Ala Leu Arg Glu Glu Cys Leu Ser
 210 215 220
 Arg Glu Cys Asn Arg Gln Gln Lys Val Ile Pro Val Val Asn Ser Phe
 225 230 235 240
 Tyr Ala Ala Thr Phe Leu His Leu Ala His Val Trp Arg Thr Gln Arg
 245 250 255
 Lys Thr Ile Ser Asp Ser Gly Phe Val Leu Lys Gly Val Leu Phe Leu
 260 265 270
 Leu Gly Arg Pro Arg Leu Asn Ala Gln Cys Pro Arg Ser Arg Glu Pro
 275 280 285
 Lys Val Val Ala Arg Leu Val Leu Ala Ala Val Leu Pro His Pro His
 290 295 300
 Phe Leu Lys Phe Gln Leu Thr Lys Ile Ser Ile Thr His Pro Leu Glu
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<210> 4527

<211> 885

<212> DNA

<213> Homo sapiens

<400> 4527

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<400> 4528															
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Cys	Arg	Asp	Met	Ala	Ala	Phe	Ile	Val	Pro	Ser	Pro	Ala	Arg	Arg	Cys
			20					25					30		
Ser	Gln	Lys	Gly	Ser	Leu	Gly	His	Leu	Pro	Thr	Gln	Pro	Trp	Leu	Trp
		35					40					45			
Ala	Ala	Met	Ser	Pro	Arg	Gly	Gln	Glu	Arg	Gly	Thr	Ser	His	Ser	Gln
	50					55					60				
Ala	Arg	Glu	Pro	Gln	Arg	Pro	Gly	Arg	Trp	Leu	Leu	Gly	Ser	Leu	Gln
65					70					75					80
Ser	Ser	Pro	Gly	Thr	Leu	Gly	Gln	Ala	Gly	Thr	Ala	Ser	Arg	Arg	Arg
				85					90				95		
Gly	Cys	Met	Val	Gln	Arg	Trp	Val	Gln	Val	Ala	Thr	Gly	Arg	Arg	Ala
			100					105				110			
Val	Gln	Val	Pro	Lys	Gly	Ala	Leu	Gly	Leu	Ala	Leu	Gly	Glu	Thr	Ser
		115				120					125				
Pro	Gly	Ala	Ser	Arg	Gly	Met	Ser	Gly	Gly	Ala	Gly	Gly	Cys	Trp	Ala
	130					135					140				
Leu	Gly	Trp	Ala	Pro	Ser	Pro	Val	Leu	Pro	Ser	Trp	Leu	Leu	Glu	Gly

145 150 155 160
 Pro Pro Pro Trp Leu Ser Ile Ile Ser Asp Ser Gly Thr Gln Thr Pro
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 Ser Pro Arg Arg Cys Pro Ala Arg Pro Ser Pro Trp Gly Pro Gln Cys
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 Trp Arg Gly Gly Arg Ile Ala Ser Ala Glu Ala Ser Ser Thr
 195 200 205

<210> 4529
 <211> 546
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 360
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<210> 4530
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 4530
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 20 25 30
 Pro Ala Ala Ala Pro Ser Ser Ser Met Ser Glu Glu Pro Gly Pro Glu
 35 40 45
 Gln Ala Ala Thr Pro Pro Val Gly Asn Val Glu Gly Leu Glu Gly Cys
 50 55 60
 Ser Arg Ala Pro Pro Gln Pro Gln Thr Ala Ala Ser Leu Ala Pro Asp
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<210> 4531
<211> 1414
<212> DNA
<213> Homo sapiens

<400> 4531
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240
cggccccgct tgggctttga gggaggccag actccatttt acatccgaat cccaaaatac
300
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360
cagtatctta ttgatttggg tcgtgttgat cctagtcaac ctattgactt aaccagctt
420
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<210> 4532
 <211> 296
 <212> PRT
 <213> Homo sapiens

<400> 4532
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 35 40 45
 Cys Gly Arg Gly His Lys Gly Glu Arg Gln Arg Gly Thr Arg Pro Arg
 50 55 60
 Leu Gly Phe Glu Gly Gly Gln Thr Pro Phe Tyr Ile Arg Ile Pro Lys
 65 70 75 80
 Tyr Gly Phe Asn Glu Gly His Ser Phe Arg Arg Gln Tyr Lys Pro Leu
 85 90 95
 Ser Leu Asn Arg Leu Gln Tyr Leu Ile Asp Leu Gly Arg Val Asp Pro
 100 105 110
 Ser Gln Pro Ile Asp Leu Thr Gln Leu Val Asn Gly Arg Gly Val Thr
 115 120 125
 Ile Gln Pro Leu Lys Arg Asp Tyr Gly Val Gln Leu Val Glu Glu Gly
 130 135 140
 Ala Asp Thr Phe Thr Ala Lys Val Asn Ile Glu Val Gln Leu Ala Ser
 145 150 155 160
 Glu Leu Ala Ile Ala Ala Ile Glu Lys Asn Gly Gly Val Val Thr Thr
 165 170 175
 Ala Phe Tyr Asp Pro Arg Ser Leu Asp Ile Val Cys Lys Pro Val Pro
 180 185 190
 Phe Phe Leu Arg Gly Gln Pro Ile Pro Lys Arg Met Leu Pro Pro Glu
 195 200 205
 Glu Leu Val Pro Tyr Tyr Thr Asp Ala Lys Asn Arg Gly Tyr Leu Ala
 210 215 220
 Asp Pro Ala Lys Phe Pro Glu Ala Arg Leu Glu Leu Ala Arg Lys Tyr
 225 230 235 240
 Gly Tyr Ile Leu Pro Asp Ile Thr Lys Asp Glu Leu Phe Lys Met Leu
 245 250 255
 Cys Thr Arg Lys Asp Pro Arg Gln Ile Phe Phe Gly Leu Ala Pro Gly
 260 265 270
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 275 280 285
 Asn Leu Leu Lys Tyr Tyr Thr Ser
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<210> 4533
 <211> 968
 <212> DNA
 <213> Homo sapiens

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 420
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<210> 4534

<211> 284

<212> PRT

<213> Homo sapiens

<400> 4534

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			20					25					30		
Glu	Ala	Asp	Arg	Val	Gly	Gln	Arg	Ala	Arg	Arg	Pro	Arg	Ala	Ala	Met
			35					40					45		
Asp	Trp	Leu	Met	Gly	Lys	Ser	Lys	Ala	Lys	Pro	Asn	Gly	Lys	Lys	Pro
	50				55						60				
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Arg	Ile	Thr	Asp	Phe	Gln	Phe	Lys	Glu	Leu	Val	Val	Leu	Pro	Arg	Glu
			85					90						95	
Ile	Asp	Leu	Asn	Glu	Trp	Leu	Ala	Ser	Asn	Thr	Thr	Thr	Phe	Phe	His
			100					105					110		
His	Ile	Asn	Leu	Gln	Tyr	Ser	Thr	Ile	Ser	Glu	Phe	Cys	Thr	Gly	Glu

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      130      135      140
Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
145      150      155      160
Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
      165      170      175
Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
      180      185      190
Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
      195      200      205
His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
      210      215      220
Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
225      230      235      240
Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
      245      250      255
Gly Ala Gly Gly Val His Ser Gly Gly Ser Gly Asp Gly Ala Gly Ser
      260      265      270
Gly Gly Pro Gly Ala Gln Asn His Val Lys Glu Arg
      275      280

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<210> 4535

<211> 473

<212> DNA

<213> Homo sapiens

<400> 4535

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cagtggcatg atcacagctc actgcaacct ctgcctccca ggttcaagca gttctctnng
120
ctcagcctcc cgagtagctg ggattacagg cgctccgccac cagccccggc taatttttgt
180
attttttagta gaaacggggt ttcaccatct cggccagggt ggtcttgaac tcctgacctc
240
atgatccatc cgccttggcc tcccaaagtg ctgggattac aggcattgagc taccgcgccc
300
ggccttggct gcagattaac gggaatacct cccttgggct tcctaggtga cactgtgata
360
ttcgggtatga cctcccttgc tctattcctt ggaagaagta caggcactgg tcaagagtgc
420
ccgggacca cttgccttgg ttttgaatcc cagcacctcc acatgttacg cgt
473

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<210> 4536

<211> 75

<212> PRT

<213> Homo sapiens

<400> 4536

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Arg Leu Phe Phe Phe Phe Phe Glu Met Glu Ser Arg Ser Val Thr
1      5      10      15
Gln Ala Gly Val Gln Trp His Asp His Ser Ser Leu Gln Pro Leu Pro

```

3731

gatgagtgcc ctctagatca ggggctgcct aaactctctg ctgaggccgt cttcgagaag
1260
tgcagtcaga tctcactgtc acagtctacc acagcctccc tgtccaagaa gtgactgttg
1320
agaggcgagg aggtagtggg tgaggctacc tgactcactt caaatgcatg ttttgagatg
1380
tttgagatt cagcaattct gtcttcattg ctccaggatc tggatatactg ttctcataaa
1440
actgagagga gaaaaaagt gaaagaaagc agctgcttta agaattggttt tccacctttt
1500
ccccctaatac tctaccaatc agacacattt tattatttaa atctgcacct ctctctattt
1560
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1620
ttagacccca aaagtgtcct cggcatggat cttgaacaga accagtatct gtcattggaac
1680
tgaacattca tcatgtgtct ccatgtattc atttattcac ttgttcattc aagtatttat
1740
tgaatactg cctcaagcta gagagaaaag agagtgcgct ttggaaattt attccagttt
1800
tcagcctaca gcagattatc agctcgggtga cttttctttc tgccaccatt taggtgatgg
1860
tgtttgattc agagatggct gaatttctat tcttagctta ttgtgactgt ttcagatcta
1920
gtttgggaac agattagagg ccattgtctt ctgtcctgat cagggtggcct ggctgtttct
1980
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2040
cagaaaggcc ttaatgacct cataggcact cttccaaaaa gacaacagaa ctggaatgag
2100
aggcctgggt ctgtctcctg ccttagcagg cctatcaatt tcttgtcaat ctcttttttt
2160
ccttgctcac attaaaagga agcatggagt tctaattgct ccataaacta tgtatttttg
2220
caagacactt cactactcca ggtctcactt tccccatctg taaaacaggg tttggactag
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2340
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2400
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2460
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2520
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2580
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2640
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2700
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2760
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2811

<210> 4538

<211> 437

<212> PRT

<213> Homo sapiens

<400> 4538

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Xaa Ala Trp His Glu Gly Asn Glu Ala Cys Asp Leu Asp Ser Thr Val
 1           5           10           15
Ser Ala Leu Ala Leu Ala Phe Tyr Leu Ala Lys Thr Thr Glu Ala Glu
      20           25           30
Glu Val Phe Val Pro Val Leu Asn Ile Lys Arg Ser Glu Leu Pro Leu
      35           40           45
Arg Gly Asp Ile Val Phe Phe Leu Gln Lys Val His Ile Pro Glu Ser
 50           55           60
Ile Leu Ile Phe Arg Asp Glu Ile Asp Leu His Ala Leu Tyr Gln Ala
 65           70           75           80
Gly Gln Leu Thr Leu Ile Leu Val Asp His His Ile Leu Ser Lys Ser
      85           90           95
Asp Thr Ala Leu Glu Glu Xaa Ser Ser Arg Gly Ala Arg Pro Ser Thr
      100           105           110
His Arg Ala Glu Thr Leu Pro Ser Leu Xaa His Val Ser Val Glu Leu
      115           120           125
Val Gly Ser Cys Ala Thr Leu Val Thr Glu Arg Ile Leu Gln Gly Ala
      130           135           140
Pro Glu Ile Leu Asp Arg Gln Thr Ala Ala Leu Leu His Gly Thr Ile
 145           150           155           160
Ile Leu Asp Cys Val Asn Met Asp Leu Lys Ile Gly Lys Ala Thr Pro
      165           170           175
Lys Asp Ser Lys Tyr Val Glu Lys Leu Glu Ala Leu Phe Pro Asp Leu
      180           185           190
Pro Lys Arg Asn Asp Ile Phe Asp Ser Leu Gln Lys Ala Lys Phe Asp
      195           200           205
Val Ser Gly Leu Thr Thr Glu Gln Met Leu Arg Lys Asp Gln Lys Thr
      210           215           220
Ile Tyr Arg Gln Gly Val Lys Val Ala Ile Ser Ala Ile Tyr Met Asp
 225           230           235           240
Leu Glu Ala Phe Leu Gln Arg Ser Asn Leu Leu Ala Asp Leu His Ala
      245           250           255
Phe Cys Gln Ala His Ser Tyr Asp Val Leu Val Ala Met Thr Ile Phe
      260           265           270
Phe Asn Thr His Asn Glu Pro Val Arg Gln Leu Ala Ile Phe Cys Pro
      275           280           285
His Val Ala Leu Gln Thr Thr Ile Cys Glu Val Leu Glu Arg Ser His
      290           295           300
Ser Pro Pro Leu Lys Leu Thr Pro Ala Ser Ser Thr His Pro Asn Leu
 305           310           315           320
His Ala Tyr Leu Gln Gly Asn Thr Gln Val Ser Arg Lys Lys Leu Leu
      325           330           335
Pro Leu Leu Gln Glu Ala Leu Ser Ala Tyr Phe Asp Ser Met Lys Ile
      340           345           350
Pro Ser Gly Gln Pro Glu Thr Ala Asp Val Ser Arg Glu Gln Val Asp
      355           360           365
Lys Glu Leu Asp Arg Ala Ser Asn Ser Leu Ile Ser Gly Leu Ser Gln

```

```

      370              375              380
Asp Glu Glu Asp Pro Pro Leu Pro Pro Thr Pro Met Asn Ser Leu Val
385              390              395              400
Asp Glu Cys Pro Leu Asp Gln Gly Leu Pro Lys Leu Ser Ala Glu Ala
      405              410              415
Val Phe Glu Lys Cys Ser Gln Ile Ser Leu Ser Gln Ser Thr Thr Ala
      420              425              430
Ser Leu Ser Lys Lys
      435

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<210> 4539

<211> 331

<212> DNA

<213> Homo sapiens

<400> 4539

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120
tcacctggaa actccagcaa gagcagagggc aggtggagga gctgaggatg cagcttcaga
180
agcagaaaag gaataactgt tcagagaaga agccgctgcc tttcctggct gcctccatca
240
agcaagaaga ggctgtctcc agctgtcctt ttgcatccca agtacctgtg aaaagacaaa
300
gcagcagctc aaagtgtcac ccaccggctt g
331

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<210> 4540

<211> 99

<212> PRT

<213> Homo sapiens

<400> 4540

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Met Gly Ala Leu Phe Leu Leu Ser Trp Met Gly Trp Thr Pro Arg Lys
1              5              10              15
Thr Arg Ser Leu Gly Glu Asn Gln Arg Val Ile Asn Glu Leu Thr Trp
      20              25              30
Lys Leu Gln Gln Glu Gln Arg Gln Val Glu Glu Leu Arg Met Gln Leu
      35              40              45
Gln Lys Gln Lys Arg Asn Asn Cys Ser Glu Lys Lys Pro Leu Pro Phe
      50              55              60
Leu Ala Ala Ser Ile Lys Gln Glu Glu Ala Val Ser Ser Cys Pro Phe
      65              70              75              80
Ala Ser Gln Val Pro Val Lys Arg Gln Ser Ser Ser Ser Lys Cys His
      85              90              95
Pro Pro Ala

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<210> 4541

<211> 452

<212> DNA

<213> Homo sapiens

<400> 4541

actagtcacc tcttctatca gatgatcatc tggatcatat tcttttagat taataatggc
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 120
 tccagtctga gaaccataaa aaatcttcac tccagacaca aagatgtctt tctcttgaag
 180
 ggagacataa ccatttgta tcaaatcctg agctgctttt ggaacagatt tttcctgtaa
 240
 gttcttgccc tgcgtcttga tgacaatctg gacacaaatc caaaggctaa tgctaacagc
 300
 aaagcccaaa taaatgtaaa acctgtttat ccacaatgat attaaagggtg agaagaggtc
 360
 ccatgtatcc gcagagggat ccatcctcct cagagccgac aggagactag gatctcggac
 420
 ctggagagcc cgatgattcg cactggtact gc
 452

<210> 4542

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4542

Met	Asp	Pro	Ser	Ala	Asp	Thr	Trp	Asp	Leu	Phe	Ser	Pro	Leu	Ile	Ser
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Leu	Trp	Ile	Asn	Arg	Phe	Tyr	Ile	Tyr	Leu	Gly	Phe	Ala	Val	Ser	Ile
		20					25					30			
Ser	Leu	Trp	Ile	Cys	Val	Gln	Ile	Val	Ile	Lys	Thr	Gln	Gly	Lys	Asn
	35					40					45				
Leu	Gln	Glu	Lys	Ser	Val	Pro	Lys	Ala	Ala	Gln	Asp	Leu	Met	Thr	Asn
	50				55					60					
Gly	Tyr	Val	Ser	Leu	Gln	Glu	Lys	Asp	Ile	Phe	Val	Ser	Gly	Val	Lys
65				70				75					80		
Ile	Phe	Tyr	Gly	Ser	Gln	Thr	Gly	Thr	Ala	Lys	Gly	Phe	Ala	Thr	Val
			85				90					95			
Leu	Ala	Glu	Ala	Val	Thr	Ser	Leu	Asp	Leu	Pro	Val	Ala	Ile	Ile	Asn
		100					105				110				
Leu	Lys	Glu	Tyr	Asp	Pro	Asp	Asp	His	Leu	Ile	Glu	Glu	Val	Thr	Ser
	115					120					125				

<210> 4543

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4543

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 120
 gaggccccgc gcaccaatgc tttgcacttt gcctcgcccc acaccctgcg ggccagagct
 180

cctctgccgc ccaccgggct aacccttccg ggccctacca ctcccagtg gctctgctta
 240
 tccggccact gactccggct cctcggaagc agggccaccc tcctgaaatg gcttggaacg
 300
 gggctttcca ctggtgccct cccagacga ttgcttgtaa tgggccagtg cctcgccagg
 360
 gacacagcgg cagccccctg tagcttggtg ctgttcagaa acaagtccag cccaggtagg
 420
 gcagagggct ctgactgggg acccaagaag ggctggctgt gccgccaccg ctgccccgtc
 480
 accatcactg tgctgaagag ctcgaggctg ggcccaccg cgccggcccc acgttcctcc
 540
 ccgggctcag gtcagggcca gggagtgacc agaagggtgt gacctgtgg cctgactggc
 600
 ccagagctca cccctgaaca tgagcaagcg caaagaaacc cccatccctg ctccccaaaa
 660
 agggcgcccc caaggccatt ttgaagggtg ggggaagccc ggattccgag aaaccgcaac
 720
 cagccgtcta cctcaggaag ctcgctaggg aggagcgcac tctatgtgac taatgcgac
 780
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 815

<210> 4544

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4544

Met	Val	Thr	Gly	Gln	Arg	Trp	Arg	His	Ser	Gln	Pro	Phe	Leu	Gly	Pro
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Gln	Ser	Glu	Pro	Ser	Ala	Leu	Pro	Gly	Leu	Asp	Leu	Phe	Leu	Asn	Ser
		20						25					30		
His	Lys	Leu	Gln	Gly	Ala	Ala	Ala	Val	Ser	Leu	Ala	Arg	His	Trp	Pro
		35					40						45		
Ile	Thr	Ser	Asn	Arg	Leu	Gly	Arg	Ala	Pro	Val	Glu	Ser	Pro	Val	Pro
		50				55					60				
Ser	His	Phe	Arg	Arg	Val	Ala	Leu	Leu	Pro	Arg	Ser	Arg	Ser	Gln	Trp
65					70					75				80	
Pro	Asp	Lys	Gln	Ser	His	Ser	Gly	Val	Val	Arg	Pro	Gly	Arg	Val	Ser
			85						90					95	
Pro	Val	Gly	Gly	Arg	Gly	Ala	Leu	Ala	Arg	Arg	Val	Ser	Gly	Glu	Ala
			100					105					110		
Lys	Cys	Lys	Ala	Leu	Val	Arg	Gly	Ala	Ser	Gly	Ser	His	Gly	Gly	Ala
		115					120					125			
Ala	Gly	Gln	Gly	Pro	Ala	Val	Thr	Arg	Ser	Pro	Ser	Ser	Leu	Cys	Leu
		130				135						140			
Ala	Leu	Val	Ser	Thr	Gly										
145					150										

<210> 4545

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 4545
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120
gacagaaatg cagaggagaa aaagcgttta tctcttcagc gagaaaagat tatcgcaagg
180
gtgagtattg ataacaggac ccgggcatta gttcaggcat taagaagaac aactgaccca
240
aagctctgca ttactagggg tgaagaactg acttttcatc ttctagaatt tcctgaagga
300
aaaggagtgg ctgtcaagga aagaattatt ccatatttat tacgactgag acaaattaag
360
gatgaaactc .ttcaggctgc agttagagaa attttggccc taattggcta tgtggatcca
420
gtgaaagggg gaggaatccg aattctctca attgatggtg gaggaacaag gggcgtggtt
480
gctctccaga ccctacgaaa attagttgaa cttactcaga agccagttca tcagctcttt
540
gattacattt gtggtgtaag cacagggtgc atattagctt tcatgttggg gttgtttcat
600
atgcccttgg atgaatgtga ggaactttat cgaaaattag gatcagatgt attttcacaa
660
aatgtcattg ttggaacagt aaaaatgagt tggagccatg cattttatga cagtcaaaac
720
tgggaaaaca ttcttaagga taggatggga tctgcactga tgattgaaac agcaagaaac
780
cccacatgtc ctaaggtagc tgctgtaagt accatagtaa atagagggat aacacccaaa
840
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900
tgtcagtata aaatgtggca ggccattaga gcctcatctg ctgctccagg ctactttgca
960
gaatatgcat tgggaaatga tcttcatcaa gatggagggt tgcttctgaa taacccttcg
1020
gcattagcta tgcatgagt taaatgtctt tggccagatg tgccgttaga gtgcatagta
1080
tccctgggca ctggacgtta tgagagtgat gtgagaaaca cggtaacata cacaagcttg
1140
aaaactaaac tttctaattg tatcaacagt gctacagata cagaagaagt ccatataatg
1200
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1260
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1320
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1380
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1440
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1560

cgatatgaatt ctggagaatc ctgaaaaaga cggtgcttca accagcttgc atagcacaga
1620
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1680
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1740
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1860
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1920
tctccaatcc aactgcctt ttattgtaat atcatctaaa tagatgcaga aaaatggaat
1980
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2040
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2100
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2160
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2220
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2280
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2340
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2400
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2460
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2520
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2580
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2640
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3000
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3180

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 3240
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 3360
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 3420
 aagtctgtca ttatgagaga taaagccagc tgggcttctg gggtgggtgg ggtcttggag
 3480
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 3540
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 3568

<210> 4546

<211> 380

<212> PRT

<213> Homo sapiens

<400> 4546

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1				5					10					15	
Thr	Leu	Gln	Ala	Ala	Val	Arg	Glu	Ile	Leu	Ala	Leu	Ile	Gly	Tyr	Val
			20					25					30		
Asp	Pro	Val	Lys	Gly	Arg	Gly	Ile	Arg	Ile	Leu	Ser	Ile	Asp	Gly	Gly
		35					40					45			
Gly	Thr	Arg	Gly	Val	Val	Ala	Leu	Gln	Thr	Leu	Arg	Lys	Leu	Val	Glu
	50					55				60					
Leu	Thr	Gln	Lys	Pro	Val	His	Gln	Leu	Phe	Asp	Tyr	Ile	Cys	Gly	Val
65					70				75					80	
Ser	Thr	Gly	Ala	Ile	Leu	Ala	Phe	Met	Leu	Gly	Leu	Phe	His	Met	Pro
			85					90					95		
Leu	Asp	Glu	Cys	Glu	Glu	Leu	Tyr	Arg	Lys	Leu	Gly	Ser	Asp	Val	Phe
			100					105					110		
Ser	Gln	Asn	Val	Ile	Val	Gly	Thr	Val	Lys	Met	Ser	Trp	Ser	His	Ala
	115						120					125			
Phe	Tyr	Asp	Ser	Gln	Thr	Trp	Glu	Asn	Ile	Leu	Lys	Asp	Arg	Met	Gly
	130					135					140				
Ser	Ala	Leu	Met	Ile	Glu	Thr	Ala	Arg	Asn	Pro	Thr	Cys	Pro	Lys	Val
145					150				155					160	
Ala	Ala	Val	Ser	Thr	Ile	Val	Asn	Arg	Gly	Ile	Thr	Pro	Lys	Ala	Phe
				165					170					175	
Val	Phe	Arg	Asn	Tyr	Gly	His	Phe	Pro	Gly	Ile	Asn	Ser	His	Tyr	Leu
	180							185				190			
Gly	Gly	Cys	Gln	Tyr	Lys	Met	Trp	Gln	Ala	Ile	Arg	Ala	Ser	Ser	Ala
	195					200					205				
Ala	Pro	Gly	Tyr	Phe	Ala	Glu	Tyr	Ala	Leu	Gly	Asn	Asp	Leu	His	Gln
	210					215				220					
Asp	Gly	Gly	Leu	Leu	Leu	Asn	Asn	Pro	Ser	Ala	Leu	Ala	Met	His	Glu
225					230					235				240	
Cys	Lys	Cys	Leu	Trp	Pro	Asp	Val	Pro	Leu	Glu	Cys	Ile	Val	Ser	Leu
			245					250					255		
Gly	Thr	Gly	Arg	Tyr	Glu	Ser	Asp	Val	Arg	Asn	Thr	Val	Thr	Tyr	Thr

	260		265		270										
Ser	Leu	Lys	Thr	Lys	Leu	Ser	Asn	Val	Ile	Asn	Ser	Ala	Thr	Asp	Thr
	275						280					285			
Glu	Glu	Val	His	Ile	Met	Leu	Asp	Gly	Leu	Leu	Pro	Pro	Asp	Thr	Tyr
	290						295				300				
Phe	Arg	Phe	Asn	Pro	Val	Met	Cys	Glu	Asn	Ile	Pro	Leu	Asp	Glu	Ser
305					310					315					320
Arg	Asn	Glu	Lys	Leu	Asp	Gln	Leu	Gln	Leu	Glu	Gly	Leu	Lys	Tyr	Ile
			325						330					335	
Glu	Arg	Asn	Glu	Gln	Lys	Met	Lys	Lys	Val	Ala	Lys	Ile	Leu	Ser	Gln
			340						345				350		
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<212> DNA

<213> Homo sapiens

<400> 4547

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<212> PRT

<213> Homo sapiens

<400> 4548

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<211> 2927

<212> DNA

<213> Homo sapiens

<400> 4549

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<211> 908

<212> PRT

<213> Homo sapiens

<400> 4550

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Leu Trp Ile Ser Arg Asp Thr Ala Gly Pro Ala Ser Phe Ser Asp His
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<213> Homo sapiens

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<213> Homo sapiens

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<210> 4554

<211> 705

<212> PRT

<213> Homo sapiens

<400> 4554

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			20					25					30		
Glu	Ile	Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser	Ile	Tyr	Met	Glu	Ala	Ser
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Thr	Val	Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu
	50					55					60				
Pro	Ala	Asn	Thr	Gln	Ile	Leu	Leu	Leu	Gln	Thr	Asn	Asn	Ile	Ala	Lys
65				70					75					80	
Ile	Glu	Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu
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Ser	Gln	Asn	Asn	Leu	Ser	Ser	Val	Thr	Asn	Ile	Asn	Val	Lys	Lys	Met
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Pro	Gln	Leu	Leu	Ser	Val	Tyr	Leu	Glu	Glu	Asn	Lys	Leu	Thr	Glu	Leu
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Pro	Glu	Lys	Cys	Leu	Ser	Glu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Tyr	Ile
	130					135					140				
Asn	His	Asn	Leu	Leu	Ser	Thr	Ile	Ser	Pro	Gly	Ala	Phe	Ile	Gly	Leu
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His	Asn	Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile
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Asn	Ser	Lys	Trp	Phe	Asp	Ala	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	Ile
		180						185					190		
Gly	Glu	Asn	Pro	Ile	Ile	Arg	Ile	Lys	Asp	Met	Asn	Phe	Lys	Pro	Leu
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Ile	Asn	Leu	Arg	Ser	Leu	Val	Ile	Ala	Gly	Ile	Asn	Leu	Thr	Glu	Ile
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Pro	Asp	Asn	Ala	Leu	Val	Gly	Leu	Glu	Asn	Leu	Glu	Ser	Ile	Ser	Phe
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Tyr	Asp	Asn	Arg	Leu	Ile	Lys	Val	Pro	His	Val	Ala	Leu	Gln	Lys	Val
			245					250					255		
Val	Asn	Leu	Lys	Phe	Leu	Asp	Leu	Asn	Lys	Asn	Pro	Ile	Asn	Arg	Ile
		260					265						270		
Arg	Arg	Gly	Asp	Phe	Ser	Asn	Met	Leu	His	Leu	Lys	Glu	Leu	Gly	Ile
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Asn	Asn	Met	Pro	Glu	Leu	Ile	Ser	Ile	Asp	Ser	Leu	Ala	Val	Asp	Asn
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Leu	Pro	Asp	Leu	Arg	Lys	Ile	Glu	Ala	Thr	Asn	Asn	Pro	Arg	Leu	Ser
305				310					315					320	
Tyr	Ile	His	Pro	Asn	Ala	Phe	Phe	Arg	Leu	Pro	Lys	Leu	Glu	Ser	Leu
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Met	Leu	Asn	Ser	Asn	Ala	Leu	Ser	Ala	Leu	Tyr	His	Gly	Thr	Ile	Glu

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Ser Leu Pro Asn Leu Lys Glu Ile Ser Ile His Ser Asn Pro Ile Arg
          355          360          365
Cys Asp Cys Val Ile Arg Trp Met Asn Met Asn Lys Thr Asn Ile Arg
          370          375          380
Phe Met Glu Pro Asp Ser Leu Phe Cys Val Asp Pro Pro Glu Phe Gln
385          390          395          400
Gly Gln Asn Val Arg Gln Val His Phe Arg Asp Met Met Glu Ile Cys
          405          410          415
Leu Pro Leu Ile Ala Pro Glu Ser Phe Pro Ser Asn Leu Asn Val Glu
          420          425          430
Ala Gly Ser Tyr Val Ser Phe His Cys Arg Ala Thr Ala Glu Pro Gln
          435          440          445
Pro Glu Ile Tyr Trp Ile Thr Pro Ser Gly Gln Lys Leu Leu Pro Asn
          450          455          460
Thr Leu Thr Asp Lys Phe Tyr Val His Ser Glu Gly Thr Leu Asp Ile
465          470          475          480
Asn Gly Val Thr Pro Lys Glu Gly Gly Leu Tyr Thr Cys Ile Ala Thr
          485          490          495
Asn Leu Val Gly Ala Asp Leu Lys Ser Val Met Ile Lys Val Asp Gly
          500          505          510
Ser Phe Pro Gln Asp Asn Asn Gly Ser Leu Asn Ile Lys Ile Arg Asp
          515          520          525
Ile Gln Ala Asn Ser Val Leu Val Ser Trp Lys Ala Ser Ser Lys Ile
          530          535          540
Leu Lys Ser Ser Val Lys Trp Thr Ala Phe Val Lys Thr Glu Asn Ser
545          550          555          560
His Ala Ala Gln Ser Ala Arg Ile Pro Ser Asp Val Lys Val Tyr Asn
          565          570          575
Leu Thr His Leu Asn Pro Ser Thr Glu Tyr Lys Ile Cys Ile Asp Ile
          580          585          590
Pro Thr Ile Tyr Gln Lys Asn Arg Lys Lys Cys Val Asn Val Thr Thr
          595          600          605
Lys Gly Leu His Pro Asp Gln Lys Glu Tyr Glu Lys Asn Asn Thr Thr
          610          615          620
Thr Leu Met Ala Cys Leu Gly Gly Leu Leu Gly Ile Ile Gly Val Ile
625          630          635          640
Cys Leu Ile Ser Cys Leu Ser Pro Glu Met Asn Cys Asp Gly Gly His
          645          650          655
Ser Tyr Val Arg Asn Tyr Leu Gln Lys Pro Thr Phe Ala Leu Gly Glu
          660          665          670
Leu Tyr Pro Pro Leu Ile Asn Leu Trp Glu Ala Gly Lys Glu Lys Ser
          675          680          685
Thr Ser Leu Lys Val Lys Ala Thr Val Ile Gly Leu Pro Thr Asn Met
          690          695          700
Ser
705

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<210> 4555

<211> 1128

<212> DNA

<213> Homo sapiens

<400> 4555

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 240
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 420
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<210> 4556

<211> 67

<212> PRT

<213> Homo sapiens

<400> 4556

Met	Pro	Ser	Val	Pro	Thr	Gln	Val	Ser	Glu	Arg	Pro	Leu	Met	Phe	Leu
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Leu	Asp	Thr	Pro	Gly	Val	Leu	Ala	Pro	Arg	Ile	Glu	Ser	Val	Glu	Thr
			20					25				30			
Gly	Leu	Lys	Leu	Ala	Leu	Cys	Gly	Thr	Val	Leu	Asp	His	Leu	Val	Gly
		35				40					45				
Glu	Glu	Thr	Met	Ala	Asp	Tyr	Leu	Leu	Tyr	Thr	Leu	Asn	Lys	His	Gln
		50				55					60				
Arg	Phe	Gly													

65

<210> 4557

<211> 446

<212> DNA

<213> Homo sapiens

<400> 4557

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120

catctaggac attctcatcc ccctgagacc tcaagggcct tcctgcctcc tccctcagac

180

gtgagggatga gatcctgcct ctaccattgg agcgccacag cccacctgcc tcctctgtca

240

aaaaaacctc cttgtacat ctctcacttg agacctctgc taggcctgcc tcctccatct

300

gacctccaca tcccatcagc agccacctg ggcacctgca tgcactggcc tcctccctca

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420

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446

<210> 4558

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4558

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1

5

10

15

Arg Ala Gly Met Ala Cys Pro Ser Pro Leu Leu Thr Pro Ala Pro Ser

20

25

30

Lys Ala Val Arg Cys Ala Gln Asp His Leu Gly His Ser His Pro Pro

35

40

45

Glu Thr Ser Arg Ala Phe Leu Pro Pro Pro Ser Asp Val Arg Val Arg

50

55

60

Ser Cys Leu Tyr His Trp Ser Ala Thr Ala His Leu Pro Pro Leu Ser

65

70

75

80

Lys Lys Pro Pro Cys Thr Ile Ser His Leu Arg Pro Leu Leu Gly Leu

85

90

95

Pro Pro Pro Ser Asp Leu His Ile Pro Ser Ala Ala Thr Leu Gly Pro

100

105

110

Cys Met His Trp Pro Pro Pro Ser Asp Ala Pro Cys Thr Ile Ser Leu

115

120

125

Ala Leu Asp Ala Leu Leu Gly Leu Pro Pro Pro Ser Asp His His Ile

130

135

140

Thr Ser Thr Arg

145

<210> 4559

<211> 919

<212> DNA

<213> Homo sapiens

<400> 4559

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<210> 4560

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4560

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      20             25             30
Pro Cys Asp Pro Asp Arg Asp Gln Arg Tyr Leu Thr Thr Tyr Asn Gln
      35             40             45
Gly Tyr Phe Glu Asn Ile Pro Lys Gly Leu Asp Gln Glu Gly Trp Thr
      50             55             60
Arg Gly Gly Ile Gln Pro Gln Met Pro Gly Gly Tyr Ala Leu Ser Gln
      65             70             75             80
Pro Val Ser Cys Met Glu Ala Thr Pro Asn Pro Met Glu Ser Leu Arg

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1260

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<210> 4562

<211> 1182

<212> PRT

<213> Homo sapiens

<400> 4562

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 Ala Gln Asn His Pro Ile Tyr Leu Ala Thr Gly Thr Ser Ala Gln Gln

20 25 30
 Leu Asp Ala Thr Phe Ser Thr Asn Ala Ser Leu Glu Ile Phe Glu Leu
 35 40 45
 Asp Leu Ser Asp Pro Ser Leu Asp Met Lys Ser Cys Ala Thr Phe Ser
 50 55 60
 Ser Ser His Arg Tyr His Lys Leu Ile Trp Gly Pro Tyr Lys Met Asp
 65 70 75 80
 Ser Lys Gly Asp Val Ser Gly Val Leu Ile Ala Gly Gly Glu Asn Gly
 85 90 95
 Asn Ile Ile Leu Tyr Asp Pro Ser Lys Ile Ile Ala Gly Asp Lys Glu
 100 105 110
 Val Val Ile Ala Gln Asn Asp Lys His Thr Gly Pro Val Arg Ala Leu
 115 120 125
 Asp Val Asn Ile Phe Gln Thr Asn Leu Val Ala Ser Gly Ala Asn Glu
 130 135 140
 Ser Glu Ile Tyr Ile Trp Asp Leu Asn Asn Phe Ala Thr Pro Met Thr
 145 150 155 160
 Pro Gly Ala Lys Thr Gln Pro Pro Glu Asp Ile Ser Cys Ile Ala Trp
 165 170 175
 Asn Arg Gln Val Gln His Ile Leu Ala Ser Ala Ser Pro Ser Gly Arg
 180 185 190
 Ala Thr Val Trp Asp Leu Arg Glu Asn Glu Pro Ile Ile Lys Val Ser
 195 200 205
 Asp His Ser Asn Arg Met His Cys Ser Gly Leu Ala Trp His Pro Asp
 210 215 220
 Val Ala Thr Gln Met Val Leu Ala Ser Glu Asp Asp Arg Leu Pro Val
 225 230 235 240
 Ile Gln Met Trp Asp Leu Arg Phe Ala Ser Ser Pro Leu Arg Val Leu
 245 250 255
 Glu Asn His Ala Arg Gly Ile Leu Ala Ile Ala Trp Ser Met Ala Asp
 260 265 270
 Pro Glu Leu Leu Ser Cys Gly Lys Asp Ala Lys Ile Leu Cys Ser
 275 280 285
 Asn Pro Asn Thr Gly Glu Val Leu Tyr Glu Leu Pro Thr Asn Thr Gln
 290 295 300
 Trp Cys Phe Asp Ile Gln Trp Cys Pro Arg Asn Pro Ala Val Leu Ser
 305 310 315 320
 Ala Ala Ser Phe Asp Gly Arg Ile Ser Val Tyr Ser Ile Met Gly Gly
 325 330 335
 Ser Thr Asp Gly Leu Arg Gln Lys Gln Val Asp Lys Leu Ser Ser Ser
 340 345 350
 Phe Gly Asn Leu Asp Pro Phe Gly Thr Gly Gln Pro Leu Pro Pro Leu
 355 360 365
 Gln Ile Pro Gln Gln Thr Ala Gln His Ser Ile Val Leu Pro Leu Lys
 370 375 380
 Lys Pro Pro Lys Trp Ile Arg Arg Pro Val Gly Ala Ser Phe Ser Phe
 385 390 395 400
 Gly Gly Lys Leu Val Thr Phe Glu Asn Val Arg Met Pro Ser His Gln
 405 410 415
 Gly Ala Glu Gln Gln Gln Gln His His Val Phe Ile Ser Gln Val
 420 425 430
 Val Thr Glu Lys Glu Phe Leu Ser Arg Ser Asp Gln Leu Gln Gln Ala
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 Val Gln Ser Gln Gly Phe Ile Asn Tyr Cys Gln Lys Lys Ile Asp Ala

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Phe	Glu	Asp	Asp	Ser	Arg	Gly	Lys	Tyr	Leu	Glu	Leu	Leu	Gly	Tyr	Arg
				485					490						495
Lys	Glu	Asp	Leu	Glu	Lys	Xaa	Gln	Asp	Ile	Lys	Glu	Glu	Lys	Glu	Glu
			500					505					510		
Ser	Glu	Phe	Leu	Pro	Ser	Ser	Gly	Gly	Thr	Phe	Asn	Ile	Ser	Val	Ser
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<211> 2037

<212> DNA

<213> Homo sapiens

<400> 4563

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<211> 354

<212> PRT

<213> Homo sapiens

<400> 4564

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Asp	Leu	Leu	Arg	Glu	Ile	Lys	Gln	His	Leu	Lys	Gln	Gln	Gln	Glu	Gly	
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<211> 2344
<212> DNA
<213> Homo sapiens

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<211> 247

<212> PRT

<213> Homo sapiens

<400> 4566

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Glu	Ile	Leu	Arg	Leu	Arg	Gln	Ser	Glu	Arg	Met	Ser	Gln	Asp	Asp	Phe
		35					40					45			
Gln	Ser	Pro	Pro	Ile	Val	Glu	Leu	Arg	Glu	Lys	Ile	Gln	Pro	Glu	Ile
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<211> 120

<212> PRT

<213> Homo sapiens

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			20				25					30			
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Val	Gln	Gln	Arg	Glu	Leu	Ala	Val	Thr	Ser	Pro	Lys	Asp	Gly	Ser	Ile
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Ser	Ile	Leu	Gly	Ser	Asp	Ala	Thr	Thr	Cys	His	Ile	Val	Val	Leu	
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			85				90				95				
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<210> 4569

<211> 1797

<212> DNA

<213> Homo sapiens

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<210> 4570

<211> 141

<212> PRT

<213> Homo sapiens

<400> 4570

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      20           25           30
Gln Thr Trp His Ile Arg Phe Gly Asp Asn Gly Leu Gly Thr Leu Met
      35           40           45
Leu Leu Gly Pro Gly Glu Thr Val Leu Arg Gln Lys Leu Gly Val Gln
      50           55           60
Gly Gly Pro Arg Val Arg His Cys Gly Glu Gly Asn Ala Gly Glu Ser
      65           70           75           80
Gly Pro Thr Leu Gln Leu Gly Thr Arg Gly Arg Lys Gln Arg Gly Gln
      85           90           95
Ala Ser Val Pro Leu Pro Gln Glu Gln Thr Ser Gly Pro Gln Glu Gly
      100           105           110
Leu Gln Ala Ala Arg Ser Leu Pro Ser Ala Gly Gly Ser Arg Gly Arg
      115           120           125
Lys Gly Trp Arg Ala Ala Gly Arg Gln Pro Ser Thr Arg
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<210> 4571

<211> 1084

<212> DNA

<213> Homo sapiens

<400> 4571

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720

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<210> 4572
 <211> 126
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 <213> Homo sapiens

<400> 4572
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 20 25 30
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 35 40 45
 Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met Lys Ile Asp
 50 55 60
 Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys Gln Phe Ser
 65 70 75 80
 Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile Glu Ile Thr
 85 90 95
 Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro Ser Thr Gly
 100 105 110
 Cys Tyr Met Tyr Tyr Phe Gln Tyr Leu Ser Lys Thr Tyr Trp
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<210> 4573
 <211> 309
 <212> DNA
 <213> Homo sapiens

<400> 4573
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<210> 4574
<211> 103
<212> PRT
<213> Homo sapiens

<400> 4574
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35 40 45
Ala Gly Ala Val Gly Thr Pro Gly Lys Arg Gly Pro Ser Gly Pro Gln
50 55 60
Gly Leu Leu Gly Pro Pro Gly Pro Pro Ala Pro Val Gly Pro Pro His
65 70 75 80
Ala Arg Ile Ser Gln His Gly Asp Pro Leu Leu Ser Asn Thr Phe Thr
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Glu Thr Asn Pro Phe Thr Arg
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<210> 4575
<211> 1068
<212> DNA
<213> Homo sapiens

<400> 4575
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720

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<210> 4576

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4576

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Gln	Ala	Ala	Leu	His	Leu	Leu	Gln	Pro	Leu	Gly	His	Val	Ala	Arg	Glu
	20						25					30			
Pro	Ala	Arg	His	Val	Ala	Thr	Ala	Gln	Gly	Glu	Val	Leu	Pro	Pro	Gly
	35					40					45				
Gly	Leu	Gly	Gly	Ala	Ala	Gln	Arg	Ala	Arg	Gly	Gln	Ser	His	Gly	Gly
	50				55					60					
Thr	Val	Pro	Gly	Asn	Ala	Pro	Ala	Ala	Asp	Leu	Ala	Leu	Ser	Pro	
65				70					75				80		
Arg	Leu	Glu	Arg	Ser	Gly	Thr	Ile	Ser	Thr	His	Cys	Lys	Leu	Arg	Leu
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<210> 4577

<211> 3525

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578

<211> 1007

<212> PRT

<213> Homo sapiens

<400> 4578

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 20           25           30
Leu Ala Ser Gly Asp Arg Ser Gly Asn Leu Arg Gln Val Gly Pro Gly
 35           40           45
Ser Val Gln Cys Thr Pro Pro Ser Ser Ser Ser Gly Ser Gln Gly Ser
 50           55           60
Gly Gln Lys Pro Trp Pro Trp His Leu Leu Leu Pro Ile Gly Asn Glu
 65           70           75           80
Gly Leu Ile His Glu Leu His Phe Met Asp Glu Leu Val Lys Val Glu
 85           90           95
Ala His Asp Ala Glu Val Leu Cys Leu Glu Tyr Ser Lys Pro Glu Thr
100           105           110
Gly Leu Thr Leu Leu Ala Ser Ala Ser Arg Asp Arg Leu Ile His Val
115           120           125
Leu Asn Val Glu Lys Asn Tyr Asn Leu Glu Gln Thr Leu Asp Asp His
130           135           140
Ser Ser Ser Ile Thr Ala Ile Lys Phe Ala Gly Asn Arg Asp Ile Gln
145           150           155           160
Met Ile Ser Cys Gly Ala Asp Lys Ser Ile Tyr Phe Arg Ser Ala Gln
165           170           175
Gln Gly Ser Asp Gly Leu His Phe Val Arg Thr His His Val Ala Glu
180           185           190
Lys Thr Thr Leu Tyr Asp Met Asp Ile Asp Ile Thr Gln Lys Tyr Val
195           200           205
Ala Val Ala Cys Gln Asp Arg Asn Val Arg Val Tyr Asn Thr Val Asn
210           215           220
Gly Lys Gln Lys Lys Cys Tyr Lys Gly Ser Gln Gly Asp Glu Gly Ser
225           230           235           240
Leu Leu Lys Val His Val Asp Pro Ser Gly Thr Phe Leu Ala Thr Ser
245           250           255
Cys Ser Asp Lys Ser Ile Ser Val Ile Asp Phe Tyr Ser Gly Glu Cys
260           265           270
Ile Ala Lys Met Phe Gly His Ser Gly Gly Cys Ala Ser Leu Leu Gly
275           280           285
Met Pro Pro His Pro Pro Thr Pro Ser Asp Ser Glu Gly Lys Cys Ser
290           295           300
Leu Ser Ala Leu Phe Ala Glu Ile Ile Thr Ser Met Lys Phe Thr Tyr
305           310           315           320
Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe Ile
325           330           335
Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu Leu
340           345           350
Glu Ile Asp His Arg Gln Gln Gln His Thr Asn Asp Lys Lys Arg
355           360           365
Ser Gly His Pro Arg Ser Trp Gln Pro Leu Pro Val His Gln Arg Asp
370           375           380
Glu Ser Leu Pro Gly Pro His Gly Val Met Leu Gly Thr Gln Ser Ser
385           390           395           400
Leu Pro Ala Asn Gln Arg Gln Ala Ala Thr Val Gly Lys Ala Ala Gly

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3775

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      835              840              845
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      850              855              860
Asn Pro Gln Leu Pro Glu Ala Arg Pro Gly Ile Pro Gly Gly Thr Ala
865              870              875              880
Ser Leu Leu Glu Pro Thr Ser Gly Trp Gly Thr Ser Cys Thr Gly Cys
      885              890              895
Arg Pro Pro Ser Lys Lys Pro Ser Thr Phe Thr Val Cys Trp Ser Pro
      900              905              910
Val Ala Arg Trp Thr Pro Gly Ser Ser Arg His Gly Leu Ser Trp Ser
      915              920              925
Pro Pro Ser Cys Gly Ser Thr Ala Ser Trp Arg Leu Asn Ala Trp Trp
      930              935              940
Gly Leu Val Trp Pro Gln Pro Arg Leu Cys Pro Ala Gln Asp Pro Arg
945              950              955              960
Pro His Arg Arg Cys Thr Pro Trp Pro Ala Gln Thr Cys Arg Pro Cys
      965              970              975
Trp Asn Thr Thr Arg Ser Cys Trp Cys Arg Pro Cys Gly Gly Arg His
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Gly Gly Thr Glu Gly Ala Ala Pro Pro Pro Gln Pro Cys Cys Phe
      995              1000              1005

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<210> 4579

<211> 321

<212> DNA

<213> Homo sapiens

<400> 4579

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accaactgca tgaagcagca cttgctggag attgaccacc ggcagcagca gcagcacaca
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<210> 4580

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4580

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Xaa Lys Met Phe Gly His Ser Glu Ile Ile Thr Ser Met Lys Phe Thr
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Tyr Asp Cys His His Leu Ile Thr Val Ser Gly Asp Ser Cys Val Phe
      20              25              30
Ile Trp His Leu Gly Pro Glu Ile Thr Asn Cys Met Lys Gln His Leu
      35              40              45
Leu Glu Ile Asp His Arg Gln Gln Gln Gln His Thr Asn Asp Lys Lys

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50		55		60												
Arg	Ser	Gly	Pro	Pro	Arg	Gln	Asp	Thr	Tyr	Val	Ser	Thr	Pro	Ser	Glu	
65				70						75					80	
Ile	His	Ser	Leu	Ser	Pro	Gly	Glu	Gln	Thr	Glu	Asp	Asp	Leu	Glu	Glu	
			85						90					95		
Glu	Cys	Glu	Pro	Glu	Glu	Met	Leu	Lys	Thr	Pro						
			100						105							

<210> 4581

<211> 1396

<212> DNA

<213> Homo sapiens

<400> 4581

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1200

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<210> 4582

<211> 354

<212> PRT

<213> Homo sapiens

<400> 4582

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		20						25					30		
Glu	Leu	Met	Lys	Ala	Phe	Glu	Thr	Pro	Glu	Glu	Lys	Arg	Ala	Arg	Arg
		35					40					45			
Leu	Ala	Lys	Lys	Glu	Ala	Lys	Glu	Arg	Lys	Lys	Arg	Glu	Lys	Met	Gly
	50					55					60				
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<210> 4583

<211> 3350

<212> DNA

<213> Homo sapiens

<400> 4583

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<210> 4584

<211> 923

<212> PRT

<213> Homo sapiens

<400> 4584

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			20					25					30		
Trp	Leu	Gly	Glu	Leu	Gln	Arg	Ser	Val	His	Ala	Trp	Glu	Ile	Ser	Asp
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Gln	Leu	Leu	Gln	Ile	Arg	Gln	Asp	Val	Glu	Ser	Cys	Tyr	Phe	Ala	Ala
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Gln	Thr	Met	Lys	Met	Lys	Ile	Gln	Thr	Ser	Phe	Tyr	Glu	Leu	Pro	Thr
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Asp	Ser	His	Ala	Ser	Leu	Arg	Asp	Ser	Leu	Leu	Thr	His	Ile	Gln	Asn
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Leu	Lys	Asp	Leu	Ser	Pro	Val	Ile	Val	Thr	Gln	Leu	Ala	Leu	Ala	Ile
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Ala	Asp	Leu	Ala	Leu	Gln	Met	Pro	Ser	Trp	Lys	Gly	Cys	Val	Gln	Thr
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Thr	Asp	Glu	Lys	Met	Leu	Met	Lys	Val	Phe	Arg	Cys	Leu	Gly	Ser	Trp
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Phe	Asn	Leu	Gly	Val	Leu	Asp	Ser	Asn	Phe	Met	Ala	Asn	Asn	Lys	Leu
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Leu	Ala	Leu	Leu	Phe	Glu	Val	Leu	Gln	Gln	Asp	Lys	Thr	Ser	Ser	Asn

3782

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Val Asn Val Tyr His Val His Gln His Ser Cys Phe Leu Tyr Leu Gly
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Ser Ile Leu Val Asp Glu Tyr Gly Met Glu Glu Gly Cys Arg Gln Gly
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Leu Leu Asp Met Leu Gln Ala Leu Cys Ile Pro Thr Phe Gln Leu Leu
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Glu Gln Gln Asn Gly Leu Gln Asn His Pro Asp Thr Val Asp Asp Leu
        740          745          750
Phe Arg Leu Ala Thr Arg Phe Ile Gln Arg Ser Pro Val Thr Leu Leu
        755          760          765
Arg Ser Gln Val Val Ile Pro Ile Leu Gln Trp Ala Ile Ala Ser Thr
        770          775          780
Thr Leu Asp His Arg Asp Ala Asn Cys Ser Val Met Arg Phe Leu Arg
785          790          795          800
Asp Leu Ile His Thr Gly Val Ala Asn Asp His Glu Glu Asp Phe Glu
        805          810          815
Leu Arg Lys Glu Leu Ile Gly Gln Val Met Asn Gln Leu Gly Gln Gln
        820          825          830
Leu Val Ser Gln Leu Leu His Thr Cys Cys Phe Cys Leu Pro Pro Tyr
        835          840          845
Thr Leu Pro Asp Val Ala Glu Val Leu Trp Glu Ile Met Gln Val Asp
        850          855          860
Arg Pro Thr Phe Cys Arg Trp Leu Glu Asn Ser Leu Lys Gly Leu Pro
865          870          875          880
Lys Glu Thr Thr Val Gly Ala Val Thr Val Thr His Lys Gln Leu Thr
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<210> 4585

<211> 1952

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
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Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
 85          90          95
Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
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His Gln His Leu Lys Thr Leu Leu Glu Arg Asn Pro Ile Lys Met
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Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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<210> 4588

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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			20					25				30			
Pro	Ser	Lys	Lys	Gly	Glu	Thr	Pro	Thr	Val	Asp	Gly	Thr	Trp	Lys	Thr
		35				40					45				
Pro	Ser	Phe	Pro	Lys	Lys	Lys	Thr	Ala	Ala	Ser	Ser	Asn	Gly	Ser	Gly
	50				55					60					
Gln	Pro	Leu	Asp	Lys	Lys	Ala	Ala	Val	Ser	Trp	Leu	Thr	Pro	Ala	Pro
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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
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<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys
      50           55           60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser
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Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln
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<212> DNA

<213> Homo sapiens

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<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu				His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu		His	Val	Pro	Lys	Ala	Asp	Ser	Thr	Asp	Ile	Arg	Ser	Glu	Glu	Pro	Leu		
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Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile				Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile		Lys	Thr	Asp	Ser	Ser	Ala	Ser	Asn	Ser	Asn	Ser	Glu	Leu	Lys	Ala	Ile		
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Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp				Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp		Arg	Pro	Pro	Cys	Pro	Asp	Thr	Ala	Pro	Pro	Ser	Ser	Ala	Leu	His	Trp		
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Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
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Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
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Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
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Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
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Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
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Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
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Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
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Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
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Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
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Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
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Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
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Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		
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Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

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His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe			
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Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe			
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Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val			
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Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys			
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<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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<210> 4596

<211> 169
 <212> PRT
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 35 40 45
 Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50 55 60
 Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
 65 70 75 80
 Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
 85 90 95
 Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
 100 105 110
 Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
 115 120 125
 Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
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<210> 4597
 <211> 515
 <212> DNA
 <213> Homo sapiens

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<210> 4598

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4598

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      35             40             45
Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
      50             55             60
Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
65             70             75             80
Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
      85             90             95
Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
      100            105            110
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<210> 4599

<211> 2314

<212> DNA

<213> Homo sapiens

<400> 4599

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<210> 4602

<211> 305

<212> PRT

<213> Homo sapiens

<400> 4602

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Ala	Val	Arg	Ser	Tyr	Tyr	Glu	Val	Phe	Leu	Lys	Ser	Asp	Arg	Val	Ala
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Arg	Met	Val	Gln	Ser	Gly	Gly	Cys	Ser	Ala	Asn	Asp	Phe	Arg	Glu	Val
	50				55					60					
Phe	Lys	Lys	Asn	Ile	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp
	65			70					75					80	
Gly	Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	Ile	Ala	Lys	Tyr	Asp
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Ala	Ile	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met
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Ala	Leu	Ser	Ala	Val	Ser	Glu	Leu	Ile	Leu	Ser	Lys	Glu	Gln	Leu	Tyr
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Glu	Met	Phe	Gln	Gln	Ile	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu
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Ile	Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala
			165					170					175		
Lys	Glu	Arg	Lys	Phe	Pro	Lys	Phe	Ile	Ala	Lys	Asp	Met	Glu	Asn	Met
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Tyr	Ile	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu

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225	230	235
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Ile Val Ile Met Glu Val Gln Gly Leu Lys Ser Val Ala Pro Asn Arg		
260	265	270
Ile Val Tyr Cys Thr Met Glu Val Glu Gly Glu Lys Leu Gln Thr Asp		
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<210> 4603

<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4603

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 2090

<210> 4604

<211> 666

<212> PRT

<213> Homo sapiens

<400> 4604

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			20					25					30		
Ser	Ile	Leu	Asp	Ser	Leu	Glu	Pro	Gln	Ser	Leu	Ala	Ser	Leu	Leu	Ser
			35				40					45			
Glu	Ser	Glu	Ser	Pro	Gln	Glu	Ala	Gly	Arg	Gly	His	Pro	Ser	Phe	Leu
			50				55				60				
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Lys Glu Val Glu Ala Gly Pro Gly Asp Gln Gln Gly Asp Ser Tyr Leu
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Arg Val Ser Ser Asp Ser Pro Lys Asp Gln Ser Pro Pro Glu Asp Ser
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Gly Glu Ser Glu Ala Asp Leu Glu Cys Ser Phe Ala Ala Ile His Ser
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Pro Ala Pro Pro Pro Asp Pro Ala Pro Arg Phe Ala Thr Ser Leu Pro
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His Phe Pro Gly Cys Ala Gly Pro Thr Glu Asp Glu Leu Ser Leu Pro
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Glu Gly Pro Ser Val Pro Ser Ser Ser Leu Pro Gln Thr Pro Glu Gln
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Glu Lys Phe Leu Arg His His Phe Glu Thr Leu Thr Glu Ser Pro Cys
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Asn Pro Arg Leu Ser Ile Ser Thr Gln Phe Leu Ser Ser Leu Gln Lys
225              230              235              240
Ala Ser Arg Phe Thr His Thr Phe Pro Pro Arg Ala Thr Gln Cys Leu
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Thr Asp Arg Asn Leu Pro Thr Pro Thr Ser Ala Pro Thr Pro Gly Leu
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Ala Ser Ser Arg Ala Arg Ile Ser Arg Ser Ile Ser Leu Gly Asp Ser
              355              360              365
Glu Gly Pro Ile Val Ala Thr Leu Ala Gln Pro Leu Arg Arg Pro Ser
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Ser Val Gly Glu Leu Ala Ser Leu Gly Gln Glu Leu Gln Ala Ile Thr
385              390              395              400
Thr Ala Thr Thr Pro Ser Leu Asp Ser Glu Gly Gln Glu Pro Ala Leu
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Arg Ser Trp Gly Asn His Glu Ala Arg Ala Asn Leu Arg Leu Thr Leu
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Ser Ser Ala Cys Asp Gly Leu Leu Pro Pro Val Asp Thr Gln Pro
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Gly Val Thr Val Pro Ala Val Ser Phe Pro Ala Pro Ser Pro Val Glu
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Glu Ser Ala Leu Arg Leu His Gly Ser Ala Phe Arg Pro Ser Leu Pro
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<210> 4606

<211> 584

<212> PRT

<213> Homo sapiens

<400> 4606

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			20					25				30		Ser
Trp	Ser	Leu	Pro	Asp	Gly	Ser	Leu	Val	Asn	Ser	Phe	Met	Gln	Ser
		35					40					45		Asp
Asp	Ser	Gly	Gly	Arg	Thr	Lys	Arg	Tyr	Val	Val	Phe	Asn	Asn	Gly
	50					55					60			Thr
Leu	Tyr	Phe	Asn	Glu	Val	Gly	Met	Arg	Glu	Glu	Gly	Asp	Tyr	Thr
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Phe	Ala	Glu	Asn	Gln	Val	Gly	Lys	Asp	Glu	Met	Arg	Val	Arg	Val
			85					90						95
Val	Val	Thr	Ala	Pro	Ala	Thr	Ile	Arg	Asn	Lys	Thr	Cys	Leu	Ala
			100					105					110	Val
Gln	Val	Pro	Tyr	Gly	Asp	Val	Val	Thr	Val	Ala	Cys	Glu	Ala	Lys
		115					120					125		Gly
Glu	Pro	Met	Pro	Lys	Val	Thr	Trp	Leu	Ser	Pro	Thr	Asn	Lys	Val
		130				135					140			Ile
Pro	Thr	Ser	Ser	Glu	Lys	Tyr	Gln	Ile	Tyr	Gln	Asp	Gly	Thr	Leu
145				150					155					160
Ile	Gln	Lys	Ala	Gln	Arg	Ser	Asp	Ser	Gly	Asn	Tyr	Thr	Cys	Leu
			165					170						175
Arg	Asn	Ser	Ala	Gly	Glu	Asp	Arg	Lys	Thr	Val	Trp	Ile	His	Val
		180					185					190		Asn
Val	Gln	Pro	Pro	Lys	Ile	Asn	Gly	Asn	Pro	Asn	Pro	Ile	Thr	Thr
		195				200						205		Val
Arg	Glu	Ile	Ala	Ala	Gly	Gly	Ser	Arg	Lys	Leu	Ile	Asp	Cys	Lys
														Ala

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 Glu Gly Ile Pro Thr Pro Arg Val Leu Trp Ala Phe Pro Glu Gly Val
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 Val Leu Pro Ala Pro Tyr Tyr Gly Asn Arg Ile Thr Val His Gly Asn
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 Gly Ser Leu Asp Ile Arg Ser Leu Arg Lys Ser Asp Ser Val Gln Leu
 260 265 270
 Val Cys Met Ala Arg Asn Glu Gly Gly Glu Ala Arg Leu Ile Leu Gln
 275 280 285
 Leu Thr Val Leu Glu Pro Met Glu Lys Pro Ile Phe His Asp Pro Ile
 290 295 300
 Ser Glu Lys Ile Thr Ala Met Ala Gly His Thr Ile Ser Leu Asn Cys
 305 310 315 320
 Ser Ala Ala Gly Thr Pro Thr Pro Ser Leu Val Trp Val Leu Pro Asn
 325 330 335
 Gly Thr Asp Leu Gln Ser Gly Gln Gln Leu Gln Arg Phe Tyr His Lys
 340 345 350
 Ala Asp Gly Met Leu His Ile Ser Gly Leu Ser Ser Val Asp Ala Gly
 355 360 365
 Ala Tyr Arg Cys Val Ala Arg Asn Ala Ala Gly His Thr Glu Arg Leu
 370 375 380
 Val Ser Leu Lys Val Gly Leu Lys Pro Glu Ala Asn Lys Gln Tyr His
 385 390 395 400
 Asn Leu Val Ser Ile Ile Asn Gly Glu Thr Leu Lys Leu Pro Cys Thr
 405 410 415
 Pro Pro Gly Ala Gly Gln Gly Arg Phe Ser Trp Thr Leu Pro Asn Gly
 420 425 430
 Met His Leu Glu Gly Pro Gln Thr Leu Gly Arg Val Ser Leu Leu Asp
 435 440 445
 Asn Gly Thr Leu Thr Val Arg Glu Ala Ser Val Phe Asp Arg Gly Thr
 450 455 460
 Tyr Val Cys Arg Met Glu Thr Glu Tyr Gly Pro Ser Val Thr Ser Ile
 465 470 475 480
 Pro Val Ile Val Ile Ala Tyr Pro Pro Arg Ile Thr Ser Glu Pro Thr
 485 490 495
 Pro Val Ile Tyr Thr Arg Pro Gly Asn Thr Val Lys Leu Asn Cys Met
 500 505 510
 Ala Met Gly Ile Pro Lys Ala Asp Ile Thr Trp Glu Leu Pro Asp Lys
 515 520 525
 Ser His Leu Lys Ala Gly Val Gln Ala Arg Leu Tyr Gly Asn Arg Phe
 530 535 540
 Leu His Pro Gln Gly Ser Leu Thr Ile Gln His Ala Thr Gln Arg Asp
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<210> 4607

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4607

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<210> 4608

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4608

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Cys	Asn	Cys	Arg	Gln	Glu	Met	Arg	Thr	Thr	Gln	Leu	Gly	Pro	Gly	Arg
			20					25					30		
Phe	Gln	Met	Thr	Gln	Glu	Val	Val	Cys	Asp	Glu	Cys	Pro	Asn	Val	Lys
		35					40					45			
Leu	Val	Asn	Glu	Glu	Arg	Thr	Leu	Glu	Val	Glu	Ile	Glu	Pro	Gly	Val
	50					55					60				
Arg	Asp	Gly	Met	Glu	Tyr	Pro	Phe	Ile	Gly	Glu	Gly	Glu	Pro	His	Val
65				70					75					80	
Asp	Gly	Xaa	Pro	Gly	Asp	Leu	Arg	Phe	Arg	Ile	Lys	Val	Val	Lys	His
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Pro	Ile	Phe	Glu	Arg	Arg	Gly	Asp	Asp	Leu	Tyr					
			100					105							

<210> 4609

<211> 904

<212> DNA

<213> Homo sapiens

<400> 4609

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<210> 4610

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4610

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			20					25					30		
Ala	Ala	Arg	Leu	Gly	Ala	Gln	Gly	Arg	Arg	Val	Val	Leu	Val	Thr	Ser
			35				40					45			
Gly	Gly	Thr	Lys	Val	Pro	Leu	Glu	Ala	Arg	Pro	Val	Arg	Phe	Leu	Asp
			50			55					60				
Asn	Phe	Ser	Ser	Gly	Arg	Arg	Gly	Ala	Thr	Ser	Ala	Glu	Ala	Phe	Leu
65				70				75						80	
Ala	Ala	Gly	Tyr	Gly	Val	Leu	Phe	Leu	Tyr	Arg	Ala	Arg	Ser	Ala	Phe
			85					90					95		
Pro	Tyr	Ala	His	Arg	Phe	Pro	Pro	Gln	Thr	Trp	Leu	Ser	Ala	Leu	Arg
			100					105					110		
Pro	Ser	Gly	Pro	Ala	Leu	Ser	Gly	Leu	Leu	Ser	Leu	Glu	Ala	Glu	Glu
			115				120					125			
Asn	Ala	Leu	Pro	Gly	Phe	Ala	Glu	Ala	Leu	Arg	Ser	Tyr	Gln	Glu	Ala
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Ala	Ala	Ala	Gly	Thr	Phe	Leu	Ala	Val	Glu	Phe	Thr	Thr	Leu	Ala	Asp
145				150				155					160		
Tyr	Leu	His	Leu	Leu	Gln	Ala	Ala	Ala	Gln	Ala	Leu	Asn	Pro	Leu	Gly
			165					170				175			
Pro	Ser	Ala	Met	Phe	Tyr	Leu	Ala	Ala	Ala	Val	Ser	Asp	Phe	Tyr	Val
			180					185				190			
Pro	Val	Ser	Glu	Met	Pro	Glu	His	Lys	Ile	Gln	Ser	Ser	Gly	Gly	Pro

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<210> 4611

<211> 1946

<212> DNA

<213> Homo sapiens

<400> 4611

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<210> 4612

<211> 532

<212> PRT

<213> Homo sapiens

<400> 4612

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 35 40 45
 Arg Gln Arg Asn Arg Leu Arg Leu Glu Glu Asp Lys Pro Ala Val Glu
 50 55 60
 Arg Cys Leu Glu Glu Leu Val Phe Gly Asp Val Glu Asn Asp Glu Asp
 65 70 75 80
 Ala Leu Leu Arg Arg Leu Arg Gly Pro Arg Val Gln Glu His Glu Asp
 85 90 95
 Ser Gly Asp Ser Glu Val Glu Asn Glu Ala Lys Gly Asn Phe Pro Pro
 100 105 110
 Gln Lys Lys Pro Val Trp Val Asp Glu Glu Asp Glu Asp Glu Glu Met
 115 120 125
 Val Asp Met Met Asn Asn Arg Phe Arg Lys Asp Met Met Lys Asn Ala
 130 135 140
 Ser Glu Ser Lys Leu Ser Lys Asp Asn Leu Lys Lys Arg Leu Lys Glu
 145 150 155 160
 Glu Phe Gln His Ala Met Gly Gly Val Pro Ala Trp Ala Glu Thr Thr


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Lys Arg Lys Thr Ser Ser Asp Asp Glu Ser Glu Glu Asp Glu Asp Asp
      180      185      190
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Arg Gly Ile Leu Lys Met Lys Asn Cys Gln His Ala Asn Ala Glu Arg
      210      215      220
Pro Thr Val Ala Arg Ile Ser Ser Val Gln Phe His Pro Gly Ala Gln
      225      230      235      240
Ile Val Met Val Ala Gly Leu Asp Asn Ala Val Ser Leu Phe Gln Val
      245      250      255
Asp Gly Lys Thr Asn Pro Lys Ile Gln Ser Ile Tyr Leu Glu Arg Phe
      260      265      270
Pro Ile Phe Lys Ala Cys Phe Ser Ala Asn Gly Glu Glu Val Leu Ala
      275      280      285
Thr Ser Thr His Ser Lys Val Leu Tyr Val Tyr Asp Met Leu Ala Gly
      290      295      300
Lys Leu Ile Pro Val His Gln Val Arg Gly Leu Lys Glu Lys Ile Val
      305      310      315      320
Arg Ser Phe Glu Val Ser Pro Asp Gly Ser Phe Leu Leu Ile Asn Gly
      325      330      335
Ile Ala Gly Tyr Leu His Leu Leu Ala Met Lys Thr Lys Glu Leu Ile
      340      345      350
Gly Ser Met Lys Ile Asn Gly Arg Val Ala Ala Ser Thr Phe Ser Ser
      355      360      365
Asp Ser Lys Lys Val Tyr Ala Ser Ser Gly Asp Gly Glu Val Tyr Val
      370      375      380
Trp Asp Val Asn Ser Arg Lys Cys Leu Asn Arg Phe Val Asp Glu Gly
      385      390      395      400
Ser Leu Tyr Gly Leu Ser Ile Ala Thr Ser Arg Asn Gly Gln Tyr Val
      405      410      415
Ala Cys Gly Ser Asn Cys Gly Val Val Asn Ile Tyr Asn Gln Asp Ser
      420      425      430
Cys Leu Gln Glu Thr Asn Pro Lys Pro Ile Lys Ala Ile Met Asn Leu
      435      440      445
Val Thr Gly Val Thr Ser Leu Thr Phe Asn Pro Thr Thr Glu Ile Leu
      450      455      460
Ala Ile Ala Ser Glu Lys Met Lys Glu Ala Val Arg Leu Val His Leu
      465      470      475      480
Pro Ser Cys Thr Val Phe Ser Asn Phe Pro Val Ile Lys Asn Lys Asn
      485      490      495
Ile Ser His Val His Thr Met Asp Phe Ser Pro Arg Ser Gly Tyr Phe
      500      505      510
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Tyr Ser Asp Phe
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<210> 4613

<211> 454

<212> DNA

<213> Homo sapiens

<400> 4613

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 180
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 240
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 300
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 360
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<210> 4614

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4614

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Pro	Val	Thr	Cys	Leu	Ala	Pro	Thr	Ser	Asn	Glu	Phe	Thr	Arg	Gly	Asn
			20					25					30		
Glu	Phe	Thr	Asn	Gly	Asn	Leu	Thr	Met	Ser	Asn	Glu	Phe	His	Cys	Lys
		35					40					45			
Asp	Phe	Leu	Ile	Phe	Thr	Thr	Gln	Ile	Leu	Thr	Ile	Leu	Gln	Leu	Arg
		50				55					60				
Ser	Leu	Asn	Ile	Ile	Tyr	Asn	Lys	Gln	Asn	Leu	Val	Asn	Leu	Gln	Lys
65				70					75				80		
Ser	Asn	Ala	Leu	Lys	Lys	His	Gln	Ser	Leu	Cys	Met	Cys	Arg	Thr	Asp
			85					90					95		
Pro	Ala	Pro	Gln	Gly	Asn	Thr	Ala	Gly	Thr	Val	Pro	Arg	Thr	Leu	Thr
			100					105					110		
Ser	Val	Ser	Leu	Leu											
			115												

<210> 4615

<211> 1350

<212> DNA

<213> Homo sapiens

<400> 4615

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 180
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 240

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 300
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 360
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 420
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 480
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 660
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 720
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 780
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 840
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 1020
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 1350

<210> 4616

<211> 188

<212> PRT

<213> Homo sapiens

<400> 4616

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Leu	Pro	Leu	Ser	Pro	Pro	Leu	Val	Glu	Asp	Ser	Ala	Phe	Glu	Pro	Ser
			20				25					30			
Arg	Lys	Asp	Met	Asp	Glu	Val	Glu	Glu	Lys	Ser	Lys	Asp	Val	Ile	Asn
		35				40					45				
Phe	Thr	Ala	Glu	Lys	Leu	Ser	Val	Asp	Glu	Val	Ser	Gln	Leu	Val	Ile
	50					55					60				
Ser	Pro	Leu	Cys	Gly	Ala	Ile	Ser	Leu	Phe	Val	Gly	Thr	Thr	Arg	Asn

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<400> 4617
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180
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240
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360
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420
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960

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<210> 4618

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4618

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<210> 4619
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<212> DNA
<213> Homo sapiens
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<210> 4620
<211> 103
<212> PRT
<213> Homo sapiens
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<400> 4620

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      20           25           30
Leu Gln Ala Arg Pro Asn Pro Arg Phe Pro Gly Arg Cys Thr Pro Gly
      35           40           45
Trp Glu Lys Leu Thr Asn Glu Ser Ser Trp Gln Pro Pro Gln Ala Pro
      50           55           60
Pro Asp Trp Ala Ser Trp Leu Cys Cys Gln Asp Tyr Asp Pro Leu Pro
65           70           75           80
Glu Ser Arg Arg Ser Pro Gln Ala Glu Arg Tyr Arg His Leu Cys Pro
      85           90           95
Tyr Leu Asn Gln Glu Val Pro
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<210> 4621

<211> 2588

<212> DNA

<213> Homo sapiens

<400> 4621

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960

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2588

<210> 4622

<211> 403

<212> PRT

<213> Homo sapiens

<400> 4622

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      20          25          30
Ile Gly Lys Lys Gly Glu Thr Val Lys Arg Ile Arg Glu Gln Ser Ser
      35          40          45
Ala Arg Ile Thr Ile Ser Glu Gly Ser Cys Pro Glu Arg Ile Thr Thr
      50          55          60
Ile Thr Gly Ser Thr Ala Ala Val Phe His Ala Val Ser Met Ile Ala
      65          70          75          80
Phe Lys Leu Asp Glu Asp Leu Cys Ala Ala Pro Ala Asn Gly Gly Asn
      85          90          95
Val Ser Arg Pro Pro Val Thr Leu Arg Leu Val Ile Pro Ala Ser Gln
      100          105          110
Cys Gly Ser Leu Ile Gly Lys Ala Gly Thr Lys Ile Lys Glu Ile Arg
      115          120          125
Glu Thr Thr Gly Ala Gln Val Gln Val Ala Gly Asp Leu Leu Pro Asn
      130          135          140
Ser Thr Glu Arg Ala Val Thr Val Ser Gly Val Pro Asp Ala Ile Ile
      145          150          155          160
Leu Cys Val Arg Gln Ile Cys Ala Val Ile Leu Glu Ser Pro Pro Lys
      165          170          175
Gly Ala Thr Ile Pro Tyr His Pro Ser Leu Ser Leu Gly Thr Val Leu
      180          185          190
Leu Ser Ala Asn Gln Gly Phe Ser Val Gln Gly Gln Tyr Gly Ala Val
      195          200          205
Thr Pro Ala Glu Val Thr Lys Leu Gln Gln Leu Ser Ser His Ala Val
      210          215          220
Pro Phe Ala Thr Pro Ser Val Val Pro Gly Leu Asp Pro Gly Thr Gln
      225          230          235          240
Thr Ser Ser Gln Glu Phe Leu Val Pro Asn Asp Leu Ile Gly Cys Val
      245          250          255
Ile Gly Arg Gln Gly Ser Lys Ile Ser Glu Ile Arg Gln Met Ser Gly
      260          265          270
Ala His Ile Lys Ile Gly Asn Gln Ala Glu Gly Ala Gly Glu Arg His
      275          280          285
Val Thr Ile Thr Gly Ser Pro Val Ser Ile Ala Leu Ala Gln Tyr Leu
      290          295          300
Ile Thr Ala Cys Leu Glu Thr Ala Lys Ser Thr Ser Gly Gly Thr Pro
      305          310          315          320
Gly Ser Ala Pro Ala Asp Leu Pro Thr Pro Phe Ser Pro Pro Leu Thr
      325          330          335
Ala Leu Pro Thr Ala Pro Pro Gly Leu Leu Gly Thr Pro Tyr Ala Ile
      340          345          350
Ser Leu Ser Asn Phe Ile Gly Leu Lys Pro Val Pro Phe Leu Ala Leu

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	355		360		365														
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	370					375					380								
Lys	Met	Ala	Ala	Ala	Asn	Gly	Ser	Lys	Lys	Ala	Glu	Arg	Gln	Lys	Phe				
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<210> 4623

<211> 2220

<212> DNA

<213> Homo sapiens

<400> 4623

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180
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1020
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 2220

<210> 4624

<211> 189

<212> PRT

<213> Homo sapiens

<400> 4624

Met	Lys	Ser	Lys	Lys	Lys	Val	Glu	Gln	Pro	Val	Ile	Glu	Glu	Pro	Ala
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Leu	Lys	Arg	Lys	Lys	Lys	Lys	Arg	Lys	Glu	Ser	Gly	Val	Ala	Gly	
		20					25					30			
Asp	Pro	Trp	Lys	Glu	Glu	Thr	Asp	Thr	Asp	Leu	Glu	Val	Val	Leu	Glu
		35				40					45				
Lys	Lys	Gly	Asn	Met	Asp	Glu	Ala	His	Ile	Asp	Gln	Val	Arg	Arg	Lys
		50				55				60					
Ala	Leu	Gln	Glu	Glu	Ile	Asp	Arg	Glu	Ser	Gly	Lys	Thr	Glu	Ala	Ser
65					70					75				80	
Glu	Thr	Arg	Lys	Trp	Thr	Gly	Thr	Gln	Phe	Gly	Gln	Trp	Asp	Thr	Ala
			85					90					95		
Gly	Phe	Glu	Asn	Glu	Asp	Gln	Lys	Leu	Lys	Phe	Leu	Arg	Leu	Met	Gly

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      100      105      110
Gly Phe Lys Asn Leu Ser Pro Ser Phe Ser Arg Pro Ala Ser Thr Ile
      115      120      125
Ala Arg Pro Asn Met Ala Leu Gly Lys Lys Ala Ala Asp Ser Leu Gln
      130      135      140
Gln Asn Leu Gln Arg Asp Tyr Asp Arg Ala Met Ser Trp Lys Tyr Ser
145      150      155      160
Arg Gly Ala Gly Leu Gly Phe Ser Thr Ala Pro Asn Lys Ile Phe Tyr
      165      170      175
Ile Asp Arg Asn Ala Ser Lys Ser Val Lys Leu Glu Asp
      180      185

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<210> 4625

<211> 334

<212> DNA

<213> Homo sapiens

<400> 4625

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120
ctggaggagc agcggcagtc agaacgtctc cagaggcagc tgcagcagga gcatgcctac
180
ctaaagtccc tgcagcagca gcaacagcag cagcagcttc agaaacagca gcagcagcag
240
ctcctgcctg gggacaggaa gccctgtac cattatgggc ggggcatgaa tcccgctgac
300
aaaccagcct gggcccgaga gggaagaagag agac
334

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<210> 4626

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4626

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Arg Glu Gln Arg Lys Leu Gln Glu Lys Glu Gln Gln Arg Arg Leu Glu
 1      5      10      15
Asp Met Gln Ala Leu Arg Arg Glu Glu Glu Arg Arg Gln Ala Glu Arg
      20      25      30
Glu Gln Glu Tyr Lys Arg Lys Gln Leu Glu Glu Gln Arg Gln Ser Glu
      35      40      45
Arg Leu Gln Arg Gln Leu Gln Glu His Ala Tyr Leu Lys Ser Leu
      50      55      60
Gln Gln Gln Gln Gln Gln Gln Gln Leu Gln Lys Gln Gln Gln Gln Gln
65      70      75      80
Leu Leu Pro Gly Asp Arg Lys Pro Leu Tyr His Tyr Gly Arg Gly Met
      85      90      95
Asn Pro Ala Asp Lys Pro Ala Trp Ala Arg Glu Gly Glu Glu Arg
      100      105      110

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<210> 4627

<211> 1736

<212> DNA

<213> Homo sapiens

<400> 4627

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120
gtgcacgccc ggagtttga gcctcttcca tcaagtggac ctgatttttg aggattagga
180
gaagaagctg aatttggtga agttgagcct gaagctaaac aggaaattct tgaaaacaaa
240
gatgtggttg ttcaacatgt tcattttgat ggacttgga ggactaaaga tgatatcatc
300
atgtgtgaaa ttggagatgt tttcaaggcc aaaaacctaa ttgaggaat gcggaaatct
360
catgaagccc gtgaaaaatt gctccgtctt ggaattttta gacaagtga tgttttgatt
420
gacacatgtc aaggtgatgg cgcacttcca aatgggttag acgttacctt tgaagtaact
480
gaattgagga gattaacggg cagttataac accatggttg ggaacaatga aggcagtatg
540
gtacttgccc tcaagcttcc taatcttctt ggtcgtgcag aaaagggtgac ctttcagttt
600
tcctatggaa caaaagaaac ttcgtatggc ctgtccttct tcaaaccacg gcccggaac
660
ttcgaagaa atttctctgt aaacttatat aaagtactg gacagttccc ttggagctca
720
ctgcgggaga cgacagagg aatgtcagct gactacagtt ttcccatatg gaagaccagc
780
cacactgtca agtgggaagg cgtatggcga gaactgggct gcctctcaag gacggcgtca
840
tttgcgttc gaaaagaaag cggacattca ctgaaatcat ctctttcgca cgccatggtc
900
atcgattctc ggaattcttc catcttacca aggagaggtg ctttgctgaa agttaaccag
960
gaactggcag gctacactgg cggggatgtg agcttcatca aagaagattt tgaacttcag
1020
ttgaacaagc aactcatatt tgattcagtt ttttcagcgt ctttctgggg cggaatgttg
1080
gtacccattg gtgataagcc gtcaagcatt gctgataggt tttaccttg gggaccaca
1140
agcgtccgcy gattcagcat gcacagcatc gggccacaga gcgaaggaga ctacctaggt
1200
ggagaagcgt actgggccgg cggcctgcac ctctacacc cattacctt ccggccaggc
1260
cagggtggct ttggagaact tttccgaaca cacttcttct tcaacgcagg aaacctctgc
1320
aacctcaact atggggaggg ccccaaagct catattcgta agctggctga gtgcatccgc
1380
tggtcgtacg gggccgggat tgctctcagg cttggcaaca tcgctcgggt ggaacttaat
1440
tactgcgtcc ccatgggagt acagacaggc gacaggatat gtgatggcgt ccagtttggg
1500

gctgggataa gggtcctgta gccgacaccc ctacaggaga agctctggga ctggggcagc
 1560
 agcaaggcgc ccatgccaca caccgtctct cgaggaaacg cgggttcagcg attctttgac
 1620
 tgcggaccct gtgggaaacc ccgtaataa atgttaaaga cacactcaaa aaaaaaaaaa
 1680
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa
 1736

<210> 4628

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4628

Met	Gly	Thr	Val	His	Ala	Arg	Ser	Leu	Glu	Pro	Leu	Pro	Ser	Ser	Gly
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Pro	Asp	Phe	Gly	Gly	Leu	Gly	Glu	Glu	Ala	Glu	Phe	Val	Glu	Val	Glu
			20				25						30		
Pro	Glu	Ala	Lys	Gln	Glu	Ile	Leu	Glu	Asn	Lys	Asp	Val	Val	Val	Gln
			35				40						45		
His	Val	His	Phe	Asp	Gly	Leu	Gly	Arg	Thr	Lys	Asp	Asp	Ile	Ile	Ile
			50			55					60				
Cys	Glu	Ile	Gly	Asp	Val	Phe	Lys	Ala	Lys	Asn	Leu	Ile	Glu	Val	Met
65					70					75				80	
Arg	Lys	Ser	His	Glu	Ala	Arg	Glu	Lys	Leu	Leu	Arg	Leu	Gly	Ile	Phe
			85						90					95	
Arg	Gln	Val	Asp	Val	Leu	Ile	Asp	Thr	Cys	Gln	Gly	Asp	Gly	Ala	Leu
			100					105					110		
Pro	Asn	Gly	Leu	Asp	Val	Thr	Phe	Glu	Val	Thr	Glu	Leu	Arg	Arg	Leu
			115				120					125			
Thr	Gly	Ser	Tyr	Asn	Thr	Met	Val	Gly	Asn	Asn	Glu	Gly	Ser	Met	Val
			130			135					140				
Leu	Gly	Leu	Lys	Leu	Pro	Asn	Leu	Leu	Gly	Arg	Ala	Glu	Lys	Val	Thr
145					150					155				160	
Phe	Gln	Phe	Ser	Tyr	Gly	Thr	Lys	Glu	Thr	Ser	Tyr	Gly	Leu	Ser	Phe
			165					170					175		
Phe	Lys	Pro	Arg	Pro	Gly	Asn	Phe	Glu	Arg	Asn	Phe	Ser	Val	Asn	Leu
			180					185					190		
Tyr	Lys	Val	Thr	Gly	Gln	Phe	Pro	Trp	Ser	Ser	Leu	Arg	Glu	Thr	Asp
			195				200					205			
Arg	Gly	Met	Ser	Ala	Glu	Tyr	Ser	Phe	Pro	Ile	Trp	Lys	Thr	Ser	His
			210			215					220				
Thr	Val	Lys	Trp	Glu	Gly	Val	Trp	Arg	Glu	Leu	Gly	Cys	Leu	Ser	Arg
225				230						235				240	
Thr	Ala	Ser	Phe	Ala	Val	Arg	Lys	Glu	Ser	Gly	His	Ser	Leu	Lys	Ser
			245					250					255		
Ser	Leu	Ser	His	Ala	Met	Val	Ile	Asp	Ser	Arg	Asn	Ser	Ser	Ile	Leu
			260					265					270		
Pro	Arg	Arg	Gly	Ala	Leu	Leu	Lys	Val	Asn	Gln	Glu	Leu	Ala	Gly	Tyr
			275				280						285		
Thr	Gly	Gly	Asp	Val	Ser	Phe	Ile	Lys	Glu	Asp	Phe	Glu	Leu	Gln	Leu
			290				295				300				
Asn	Lys	Gln	Leu	Ile	Phe	Asp	Ser	Val	Phe	Ser	Ala	Ser	Phe	Trp	Gly

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305          310          315          320
Gly Met Leu Val Pro Ile Gly Asp Lys Pro Ser Ser Ile Ala Asp Arg
          325          330          335
Phe Tyr Leu Gly Gly Pro Thr Ser Val Arg Gly Phe Ser Met His Ser
          340          345          350
Ile Gly Pro Gln Ser Glu Gly Asp Tyr Leu Gly Gly Glu Ala Tyr Trp
          355          360          365
Ala Gly Gly Leu His Leu Tyr Thr Pro Leu Pro Phe Arg Pro Gly Gln
          370          375          380
Gly Gly Phe Gly Glu Leu Phe Arg Thr His Phe Phe Leu Asn Ala Gly
385          390          395          400
Asn Leu Cys Asn Leu Asn Tyr Gly Glu Gly Pro Lys Ala His Ile Arg
          405          410          415
Lys Leu Ala Glu Cys Ile Arg Trp Ser Tyr Gly Ala Gly Ile Val Leu
          420          425          430
Arg Leu Gly Asn Ile Ala Arg Leu Glu Leu Asn Tyr Cys Val Pro Met
          435          440          445
Gly Val Gln Thr Gly Asp Arg Ile Cys Asp Gly Val Gln Phe Gly Ala
          450          455          460
Gly Ile Arg Phe Leu
465

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<210> 4629

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4629

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acgcgtgggc cggagaccca gcgtgggggg cgcagaggga gtccccctga gctgggcgcg
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tcctcccgcg gcggtccgct ccttaagtc cctgtgcgtc acctccttgc gtcggtcgcc
120
agcaccgcga ttgcttcggc cctagtgcag gggcagcacg tgcgcactga accctggagt
180
cctgatctct agcctagctc aaagcctcca ccaggatcgg gtggcagctt ccatttgagg
240
ccatttctag gccagcggcc cagctgccag cttcacgtct cctgagttgg gggatctctg
300
gtccccctgc ctgctttgtg gccaaaggag cccaggatcc tggccagagg atgggcccgc
360
acccactccc tggttctggg tgcagttcgg cagatgggaa tccaggagct cagcttgga
420
acctcccca cctccggctc caagcccgt tccaagagga cccagggtg agcagaggct
480
tgtccccaat atcctcccct gccctcctc ttctctattt gaggaagac tgacacctc
540
aaagcccagc tggaggcctc tctgccatt ctgcttagac ttagcgcacc ctggtctctg
600
ctcaggaat ctgccctcag ctcccccat tctgggggtc caccacac ccacacac
660
ttccacggac caccctctct ctccctattg accatgccct cctctc
706

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<210> 4630

<211> 140
 <212> PRT
 <213> Homo sapiens

<400> 4630

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Met Val Asn Arg Glu Arg Glu Gly Gly Pro Trp Lys Cys Val Trp Val
 1           5           10           15
Leu Gly Gly Pro Pro Glu Trp Gly Glu Leu Arg Ala Asp Ser Ser Ser
      20           25           30
Arg Asp Gln Gly Ala Leu Ser Leu Ser Arg Met Gly Arg Asp Ala Ser
      35           40           45
Ser Trp Ala Leu Arg Val Ser Val Phe Pro Gln Ile Gly Lys Met Arg
      50           55           60
Gly Arg Gly Gly Tyr Trp Gly Gln Ala Ser Ala Gln Pro Trp Val Leu
65           70           75           80
Leu Glu Pro Gly Leu Glu Pro Glu Val Gly Arg Val Ser Lys Leu Ser
      85           90           95
Ser Trp Ile Pro Ile Cys Arg Thr Ala Pro Arg Thr Arg Ser Gly Val
      100          105          110
Arg Ala His Pro Leu Ala Arg Ile Leu Gly Ser Leu Gly His Lys Ala
      115          120          125
Gly Gln Gly Thr Arg Asp Pro Pro Thr Gln Glu Thr
      130          135          140

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<210> 4631
 <211> 2756
 <212> DNA
 <213> Homo sapiens

<400> 4631

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120
gagtcggccg gctgggactt gcagatcgcg ctagecgagct tttatgagga cggaggggat
180
gaagacattg tgaccatttc gcaggcaacc ccagttcag tgtccagagg cacagccccc
240
agtgataata gagtgacatc cttcagagac ctcattcatg accaagatga agatgaggag
300
gaagaggaag gccagaggag caggttttat gctgggggct cagagagaag tggacagcag
360
attgttggcc ctcccaggaa gaaaagtccc aacgagctgg tggatgatct ctttaaaggt
420
gccaaagagc atggagctgt agctgtggag cgagtgaaca agagccctgg agagaccagt
480
aaaccgagac catttgcagg aggtggctac cgccttgggg cagcaccaga ggaagagtct
540
gcctatgtgg caggagaaaa gaggcagcat tccagccaag atgttcatgt agtattgaaa
600
ctctggaaga gtggattcag cctggataat ggagaactca gaagctacca agacccatcc
660
aatgcccgat ttctggagtc tatccgcaga ggggaggtgc cagcagagct tcggaggcta
720

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gctcacggtg gacaggtgaa cttggatatg gaggaccatc gggacgagga ctttgtgaag
780
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840
caggtgttga gtaccagctc tccagcccaa caggcagaaa atgaagccaa agccagctct
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960
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1020
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1080
aaagagctgg ctgatgagag ccagaccctg aaggaagcca acctgctcaa tgcgtgcac
1140
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1200
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1380
aaaacaacca aaaaaattga aggaatatca ccagcatgtt gtacggaaac tctccactg
1440
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1560
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1980
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2280
tccaccaccc ctataagttt gattgctatg caggtttggg agaggaggcc tattgggctc
2340

ttggatggaa ccctttcccg tattaacaa accagagaca gaatcagtgc tgactcagga
 2400
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 2460
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 2580
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 2640
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 2700
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 2756

<210> 4632

<211> 372

<212> PRT

<213> Homo sapiens

<400> 4632

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Gly	Ala	Glu	Glu	Asp	Arg	Ala	Arg	Phe	Phe	Leu	Glu	Ser	Ala	Gly	Trp
			20					25					30		
Asp	Leu	Gln	Ile	Ala	Leu	Ala	Ser	Phe	Tyr	Glu	Asp	Gly	Gly	Asp	Glu
		35					40					45			
Asp	Ile	Val	Thr	Ile	Ser	Gln	Ala	Thr	Pro	Ser	Ser	Val	Ser	Arg	Gly
	50					55					60				
Thr	Ala	Pro	Ser	Asp	Asn	Arg	Val	Thr	Ser	Phe	Arg	Asp	Leu	Ile	His
	65				70					75				80	
Asp	Gln	Asp	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Arg	Ser	Arg	Phe
			85						90					95	
Tyr	Ala	Gly	Gly	Ser	Glu	Arg	Ser	Gly	Gln	Gln	Ile	Val	Gly	Pro	Pro
		100						105					110		
Arg	Lys	Lys	Ser	Pro	Asn	Glu	Leu	Val	Asp	Asp	Leu	Phe	Lys	Gly	Ala
		115					120					125			
Lys	Glu	His	Gly	Ala	Val	Ala	Val	Glu	Arg	Val	Thr	Lys	Ser	Pro	Gly
	130					135					140				
Glu	Thr	Ser	Lys	Pro	Arg	Pro	Phe	Ala	Gly	Gly	Gly	Tyr	Arg	Leu	Gly
	145				150					155				160	
Ala	Ala	Pro	Glu	Glu	Ser	Ala	Tyr	Val	Ala	Gly	Glu	Lys	Arg	Gln	
			165					170					175		
His	Ser	Ser	Gln	Asp	Val	His	Val	Val	Leu	Lys	Leu	Trp	Lys	Ser	Gly
		180					185						190		
Phe	Ser	Leu	Asp	Asn	Gly	Glu	Leu	Arg	Ser	Tyr	Gln	Asp	Pro	Ser	Asn
		195					200						205		
Ala	Gln	Phe	Leu	Glu	Ser	Ile	Arg	Arg	Gly	Glu	Val	Pro	Ala	Glu	Leu
	210					215						220			
Arg	Arg	Leu	Ala	His	Gly	Gly	Gln	Val	Asn	Leu	Asp	Met	Glu	Asp	His
	225				230						235			240	
Arg	Asp	Glu	Asp	Phe	Val	Lys	Pro	Lys	Gly	Ala	Phe	Lys	Ala	Phe	Thr
			245						250					255	
Gly	Glu	Gly	Gln	Lys	Leu	Gly	Ser	Thr	Ala	Pro	Gln	Val	Leu	Ser	Thr

260 265 270
 Ser Ser Pro Ala Gln Gln Ala Glu Asn Glu Ala Lys Ala Ser Ser Ser
 275 280 285
 Ile Leu Ile Asp Glu Ser Glu Pro Thr Thr Asn Ile Gln Ile Arg Leu
 290 295 300
 Ala Asp Gly Gly Arg Leu Val Gln Lys Phe Asn His Ser His Arg Ile
 305 310 315 320
 Ser Asp Ile Arg Leu Phe Ile Val Asp Ala Arg Pro Ala Met Ala Ala
 325 330 335
 Thr Ser Phe Ile Leu Met Thr Thr Phe Pro Asn Lys Glu Leu Ala Asp
 340 345 350
 Glu Ser Gln Thr Leu Lys Glu Ala Asn Leu Leu Asn Ala Val Ile Val
 355 360 365
 Gln Arg Leu Thr
 370

<210> 4633

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4633

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 120
 ctgcctccag acgtggcac tgaggggggc caccgtcagg cactcagtca ggctgctcag
 180
 gagctctttc ttcattctcag ggggacagct aggggtggct ctggacagga aagaagggaa
 240
 gtaggtatgc aggggtggaat cgggctttgc tccaaatgcc agcactttca gtcgggggta
 300
 gagctgacac agctgctcct gcaggctggg tgtcaggag ttgttcggca tataggcaaa
 360
 gtccagaagt gggaagaagt ccttggggcc aatcatgccg aagcccttgg taaggttggg
 420
 atgcatcagg agcagccgat ccaggatgt gatggcaaag ggagacagag acttgatgcc
 480
 cagcacaggc agcatgatcc ccagccacac tttcagtcct tcggtgaggt tggcaaaacc
 540
 tgcttgacct agggcccaca tgatggtgag acactttgct ggtcggctct ggtgggacct
 600
 cagcagttcc aggaacttgc ctagggttgc cgtggcaatc ttgggcttgt cttgcaggat
 660
 ggcttgata cagatgcggt aaccatgtag tgactccct ggtgtcttat ccagctcttg
 720
 caacatggtg aacagacagt gggccctggg tcaagcaggt ttgccaacc tctactgaggg
 780
 actgaaagtg tggctgggga tcatgctgcc tgtgctgggc atcaagtctc tgtctccctt
 840
 tgccatcacc cccttcacgc ggtcggagag agc
 873

<210> 4634

<211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4634
 Met Leu Gln Glu Leu Asp Lys Thr Pro Gly Glu Ser Leu His Gly Tyr
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 Arg Ile Cys Ile Gln Ala Ile Leu Gln Asp Lys Pro Lys Ile Ala Thr
 20 25 30
 Ala Asn Leu Gly Lys Phe Leu Glu Leu Leu Arg Ser His Gln Ser Arg
 35 40 45
 Pro Ala Lys Cys Leu Thr Ile Met Trp Ala Leu Gly Gln Ala Gly Phe
 50 55 60
 Ala Asn Leu Thr Glu Gly Leu Lys Val Trp Leu Gly Ile Met Leu Pro
 65 70 75 80
 Val Leu Gly Ile Lys Ser Leu Ser Pro Phe Ala Ile Thr Tyr Leu Asp
 85 90 95
 Arg Leu Leu Leu Met His Pro Asn Leu Thr Lys Gly Phe Gly Met Ile
 100 105 110
 Gly Pro Lys Asp Phe Phe Pro Leu Leu Asp Phe Ala Tyr Met Pro Asn
 115 120 125
 Asn Ser Leu Thr Pro Ser Leu Gln Glu Gln Leu Cys Gln Leu Tyr Pro
 130 135 140
 Arg Leu Lys Val Leu Ala Phe Gly Ala Lys Pro Asp Ser Thr Leu His
 145 150 155 160
 Thr Tyr Phe Pro Ser Phe Leu Ser Arg Ala Thr Pro Ser Cys Pro Pro
 165 170 175
 Glu Met Lys Lys Glu Leu Leu Ser Ser Leu Thr Glu Cys Leu Thr Val
 180 185 190
 Asp Pro Leu Ser Ala Ser Val Trp Arg Gln Leu Tyr Pro Lys His Leu
 195 200 205
 Ser Gln Ser Ser Leu Leu Leu Glu His Leu Leu Ser Ser Trp Glu Gln
 210 215 220
 Ile Pro Lys Lys Val Gln Lys Ser Leu Gln Glu Thr Ile Gln Ser Leu
 225 230 235 240
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<210> 4635
 <211> 384
 <212> DNA
 <213> Homo sapiens

<400> 4635
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<210> 4636

<211> 108

<212> PRT

<213> Homo sapiens

<400> 4636

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Thr	Arg	Val	Leu	Gly	Gln	Pro	Arg	Lys	Leu	Phe	Ser	Ile	Gly	Trp	Gly
		20					25					30			
Lys	Glu	Val	Lys	Trp	Gly	Pro	Arg	Lys	Ala	Gly	Gly	Val	Trp	Ala	
	35					40				45					
Glu	Pro	Ala	Ser	Gly	Gly	Leu	Pro	Pro	Pro	Glu	Asp	Glu	Phe	Cys	Ser
	50				55					60					
Pro	Gly	Val	Cys	Thr	Leu	Thr	Leu	Ala	His	Ser	Leu	Thr	His	Lys	Thr
65				70					75				80		
Leu	Thr	Leu	Cys	Phe	Phe	Trp	Gly	Glu	Gly	Gly	His	Trp	Gln	Lys	Arg
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<210> 4637

<211> 2162

<212> DNA

<213> Homo sapiens

<400> 4637

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<210> 4638

<211> 446

<212> PRT

<213> Homo sapiens

<400> 4638

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Thr Lys Ala Gly Tyr Lys Leu Phe Ser Leu Ser Ser Val Glu Gln Leu
 35          40          45
Asp Gln Val His Gly Ser Asn Glu Ile Pro Asp Val Tyr Ile Val Glu
 50          55          60
Arg Leu Phe Ser Ser Ser Leu Val Val Val Val Ser His Thr Lys Pro
 65          70          75          80
Arg Gln Met Asn Val Tyr His Phe Lys Lys Gly Thr Glu Ile Cys Asn
 85          90          95
Tyr Ser Tyr Ser Ser Asn Ile Leu Ser Ile Arg Leu Asn Arg Gln Arg
100          105          110
Leu Leu Val Cys Leu Glu Glu Ser Ile Tyr Ile His Asn Ile Lys Asp
115          120          125
Met Lys Leu Leu Lys Thr Leu Leu Asp Ile Pro Ala Asn Pro Thr Gly
130          135          140
Leu Cys Ala Leu Ser Ile Asn His Ser Asn Ser Tyr Leu Ala Tyr Pro
145          150          155          160
Gly Ser Leu Thr Ser Gly Glu Ile Val Leu Tyr Asp Gly Asn Ser Leu
165          170          175
Lys Thr Val Cys Thr Ile Ala Ala His Glu Gly Thr Leu Ala Ala Ile
180          185          190
Thr Phe Asn Ala Ser Gly Ser Lys Leu Ala Ser Ala Ser Glu Lys Gly
195          200          205
Thr Val Ile Arg Val Phe Ser Val Pro Asp Gly Gln Lys Leu Tyr Glu
210          215          220
Phe Arg Arg Gly Met Lys Arg Tyr Val Thr Ile Ser Ser Leu Val Phe
225          230          235          240
Ser Met Asp Ser Gln Phe Leu Cys Ala Ser Ser Asn Thr Glu Thr Val
245          250          255
His Ile Phe Lys Leu Glu Gln Val Thr Asn Ser Arg Pro Glu Glu Pro
260          265          270
Ser Thr Trp Ser Gly Tyr Met Gly Lys Met Phe Met Ala Ala Thr Asn
275          280          285
Tyr Leu Pro Thr Gln Val Ser Asp Met Met His Gln Asp Arg Ala Phe
290          295          300
Ala Thr Ala Arg Leu Asn Phe Ser Gly Gln Arg Asn Ile Cys Thr Leu
305          310          315          320
Ser Thr Ile Gln Lys Leu Pro Arg Leu Leu Val Ala Ser Ser Ser Gly
325          330          335
His Leu Tyr Met Tyr Asn Leu Asp Pro Gln Asp Gly Gly Glu Cys Val
340          345          350
Leu Ile Lys Thr His Ser Leu Leu Gly Ser Gly Thr Thr Glu Glu Asn
355          360          365
Lys Glu Asn Asp Leu Arg Pro Ser Leu Pro Gln Ser Tyr Ala Ala Thr
370          375          380
Val Ala Arg Pro Ser Ala Ser Ser Ala Ser Thr Val Pro Gly Tyr Ser

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385		390		395		400
Glu Asp Gly Gly Ala	Leu Arg Gly Glu Val	Ile Pro Glu His	Glu Phe			
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Ala Thr Gly Pro Val	Cys Leu Asp Asp	Glu Asn Glu Phe	Pro Pro Ile			
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<210> 4639
 <211> 1007
 <212> DNA
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<400> 4639
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<210> 4640
 <211> 71
 <212> PRT
 <213> Homo sapiens

<400> 4640

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      20           25           30
Leu Arg Arg Ser Phe Ala Leu Val Ala Gln Ala Arg Val Gln Trp Arg
      35           40           45
Asp Leu Ser Ser Leu Gln Pro Pro Pro Arg Leu Lys Arg Phe Ser
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His Leu Ser Leu Pro Ser Ser
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<210> 4641

<211> 1873

<212> DNA

<213> Homo sapiens

<400> 4641

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<210> 4642

<211> 306

<212> PRT

<213> Homo sapiens

<400> 4642

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 35 40 45
 Val Ala Cys Glu Leu Gly Arg Leu Tyr Asn Lys Asp Ala Val Ile Glu
 50 55 60
 Phe Leu Leu Asp Lys Ser Ala Glu Lys Ala Leu Gly Lys Ala Ala Ser
 65 70 75 80
 His Ile Lys Ser Ile Lys Asn Val Thr Glu Leu Lys Leu Ser Asp Asn
 85 90 95
 Pro Ala Trp Glu Gly Asp Lys Gly Asn Thr Lys Gly Asp Lys His Asp
 100 105 110
 Asp Leu Gln Arg Ala Arg Phe Ile Cys Pro Val Val Gly Leu Glu Met
 115 120 125
 Asn Gly Arg His Arg Phe Cys Phe Leu Arg Cys Cys Gly Cys Val Phe
 130 135 140
 Ser Glu Arg Ala Leu Lys Glu Ile Lys Ala Glu Val Cys His Thr Cys

145 150 155 160
 Gly Ala Ala Phe Gln Glu Asp Asp Val Ile Met Leu Asn Gly Thr Lys
 165 170 175
 Glu Asp Val Asp Val Leu Lys Thr Arg Met Glu Glu Arg Arg Leu Arg
 180 185 190
 Ala Lys Leu Glu Lys Lys Thr Lys Lys Pro Lys Ala Ala Glu Ser Val
 195 200 205
 Ser Lys Pro Asp Val Ser Glu Glu Ala Pro Gly Pro Ser Lys Val Lys
 210 215 220
 Thr Gly Lys Pro Glu Glu Ala Ser Leu Asp Ser Arg Glu Lys Lys Thr
 225 230 235 240
 Asn Leu Ala Pro Lys Ser Thr Ala Met Asn Glu Ser Ser Ser Gly Lys
 245 250 255
 Ala Gly Lys Pro Pro Cys Gly Ala Thr Lys Arg Ser Ile Ala Asp Ser
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<210> 4643

<211> 1125

<212> DNA

<213> Homo sapiens

<400> 4643

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<211> 270

<212> PRT

<213> Homo sapiens

<400> 4644

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		20					25					30			
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	50				55						60				
Gln	Glu	Asp	Asp	Met	Lys	Thr	Leu	Val	Ser	Glu	Thr	Ile	Arg	Arg	Phe
65					70					75				80	
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Gln	Arg	Pro	Glu	Glu	Thr	Ser	Ala	Gln	Gly	Phe	Arg	Gln	Leu	Leu	Glu
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	115					120						125			
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Val	Thr	Ala	Met	Thr	Lys	Ala	Leu	Ala	Leu	Asp	Glu	Ser	Pro	Tyr	Gly
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Val	Arg	Val	Asn	Cys	Ile	Ser	Pro	Gly	Asn	Ile	Trp	Thr	Pro	Leu	Trp
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Gly	Ala	Ala	Ala	Val	Phe	Leu	Ala	Ser	Glu	Ala	Asn	Phe	Cys	Thr	Gly
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Ile	Glu	Leu	Leu	Val	Thr	Gly	Gly	Ala	Glu	Leu	Gly	Tyr	Gly	Cys	Lys
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<211> 1725
<212> DNA
<213> Homo sapiens

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1440

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<210> 4646

<211> 358

<212> PRT

<213> Homo sapiens

<400> 4646

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 Ala Leu Gln Leu His Pro Asp Arg Asn Pro Asp Asp Pro Gln Ala Gln
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 Glu Lys Phe Gln Asp Leu Gly Ala Ala Tyr Glu Val Leu Ser Asp Ser
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 Glu Lys Arg Lys Gln Tyr Asp Thr Tyr Gly Glu Glu Gly Leu Lys Asp
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 Gly His Gln Ser Ser His Gly Asp Ile Phe Ser His Phe Phe Gly Asp
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 Phe Gly Phe Met Phe Gly Gly Thr Pro Arg Gln Gln Asp Arg Asn Ile
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 Cys Asp Glu Cys Pro Asn Val Lys Leu Val Asn Glu Glu Arg Thr Leu
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 Phe Arg Ile Lys Val Val Lys His Pro Ile Phe Glu Arg Arg Gly Asp
 245 250 255
 Asp Leu Tyr Thr Asn Val Thr Ile Ser Leu Val Glu Ser Leu Val Gly
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<400> 4648
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780

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<210> 4650

<211> 965

<212> PRT

<213> Homo sapiens

<400> 4650

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Glu	Val	Ala	Val	Lys	Val	Cys	Leu	Leu	Asn	Phe	Met	Ile	Thr	Pro	Leu
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Gly	Leu	Gln	Asp	Gln	Leu	Leu	Gly	Ile	Val	Ala	Ala	Lys	Glu	Lys	Pro
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Glu	Leu	Glu	Glu	Lys	Lys	Asn	Gln	Leu	Ile	Val	Glu	Ser	Ala	Lys	Asn
65				70						75				80	
Lys	Lys	His	Leu	Lys	Glu	Ile	Glu	Asp	Lys	Ile	Leu	Glu	Val	Leu	Ser
		85					90						95		
Met	Ser	Lys	Gly	Asn	Ile	Leu	Glu	Asp	Glu	Thr	Ala	Ile	Lys	Val	Leu
		100					105						110		
Ser	Ser	Ser	Lys	Val	Leu	Ser	Glu	Glu	Ile	Ser	Glu	Lys	Gln	Lys	Val
		115				120						125			
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Ala Asn Ile Glu Pro Met Tyr Gln Tyr Ser Leu Thr Trp Phe Ile Asn		160
	165	170
Leu Tyr Met His Ser Leu Thr His Ser Thr Lys Ser Glu Glu Leu Asn		175
	180	185
Leu Arg Ile Lys Tyr Ile Ile Asp His Phe Thr Leu Ser Ile Tyr Asn		190
	195	200
Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe Ser Leu		205
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Leu Leu Thr Ile Gly Ile Met Lys Gln Lys Lys Glu Ile Thr Glu Glu		220
225	230	235
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	245	250
Pro Asn Pro Ala Pro Gln Trp Leu Ser Glu Lys Ala Trp Ala Glu Ile		255
	260	265
Val Arg Ala Ser Ala Leu Pro Lys Leu His Gly Leu Met Glu His Leu		270
	275	280
Glu Gln Asn Leu Gly Glu Trp Lys Leu Ile Tyr Asp Ser Ala Trp Pro		285
	290	295
His Glu Glu Gln Leu Pro Gly Ser Trp Lys Phe Ser Gln Gly Leu Glu		300
305	310	315
Lys Met Val Ile Leu Arg Cys Leu Arg Pro Asp Lys Met Val Pro Ala		320
	325	330
Val Arg Glu Phe Ile Ala Glu His Met Gly Lys Leu Tyr Ile Glu Ala		335
	340	345
Pro Thr Phe Asp Leu Gln Gly Ser Tyr Asn Asp Ser Ser Cys Cys Ala		350
	355	360
Pro Leu Ile Phe Val Leu Ser Pro Ser Ala Asp Pro Met Ala Gly Leu		365
	370	375
Leu Lys Phe Ala Asp Asp Leu Gly Met Gly Gly Thr Arg Thr Gln Thr		380
385	390	395
Ile Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Ala Lys Met Ile Asn		400
	405	410
Asn Ala Ile Lys Asp Gly Thr Trp Val Val Leu Gln Asn Cys His Leu		415
	420	425
Ala Ala Ser Trp Met Pro Thr Leu Glu Lys Ile Cys Glu Glu Val Ile		430
	435	440
Val Pro Glu Ser Thr Asn Ala Arg Phe Arg Leu Trp Leu Thr Ser Tyr		445
	450	455
Pro Ser Glu Lys Phe Pro Val Ser Ile Leu Gln Asn Gly Ile Lys Met		460
465	470	475
Thr Asn Glu Pro Pro Lys Gly Leu Arg Ala Asn Leu Leu Arg Ser Tyr		480
	485	490
Leu Asn Asp Pro Ile Ser Asp Pro Val Phe Phe Gln Ser Cys Ala Lys		495
	500	505
Ala Val Met Trp Gln Lys Met Leu Phe Gly Leu Cys Phe Phe His Ala		510
	515	520
Val Val Gln Glu Arg Arg Asn Phe Gly Pro Leu Gly Trp Asn Ile Pro		525
	530	535
Tyr Glu Phe Asn Glu Ser Asp Leu Arg Ile Ser Met Trp Gln Ile Gln		540
545	550	555
Met Phe Leu Asn Asp Tyr Lys Glu Val Pro Phe Asp Ala Leu Thr Tyr		560

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      580              585              590
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      595              600              605
Glu Glu Asp Tyr Tyr Ser Leu Ala Pro Gly Asp Thr Tyr Tyr Ile Pro
      610              615              620
Pro His Gly Ser Tyr Gln Ser Tyr Ile Asp Tyr Leu Arg Asn Leu Pro
      625              630              635
Ile Thr Ala His Pro Glu Val Phe Gly Leu His Glu Asn Ala Asp Ile
      645              650              655
Thr Lys Asp Asn Gln Glu Thr Asn Gln Leu Phe Glu Gly Val Leu Leu
      660              665              670
Thr Leu Pro Arg Gln Ser Gly Gly Ser Gly Lys Ser Pro Gln Glu Val
      675              680              685
Val Glu Glu Leu Ala Gln Asp Ile Leu Ser Lys Leu Pro Arg Asp Phe
      690              695              700
Asp Leu Glu Glu Val Met Lys Leu Tyr Pro Val Val Tyr Glu Glu Ser
      705              710              715              720
Met Asn Thr Val Leu Arg Gln Glu Leu Ile Arg Phe Asn Arg Leu Thr
      725              730              735
Lys Val Val Arg Arg Ser Leu Ile Asn Leu Gly Arg Ala Ile Lys Gly
      740              745              750
Gln Val Leu Met Ser Ser Glu Leu Glu Glu Val Phe Asn Ser Met Leu
      755              760              765
Val Gly Lys Val Pro Ala Met Trp Ala Ala Lys Ser Tyr Pro Ser Leu
      770              775              780
Lys Pro Leu Gly Gly Tyr Val Ala Asp Leu Leu Ala Arg Leu Thr Phe
      785              790              795              800
Phe Gln Glu Trp Ile Asp Lys Gly Pro Pro Val Val Phe Trp Ile Ser
      805              810              815
Gly Phe Tyr Phe Thr Gln Ser Phe Leu Thr Gly Val Ser Gln Asn Tyr
      820              825              830
Ala Arg Lys Tyr Thr Ile Pro Ile Asp His Ile Gly Phe Glu Phe Glu
      835              840              845
Val Thr Pro Gln Glu Thr Val Met Glu Asn Asn Pro Glu Asp Gly Ala
      850              855              860
Tyr Ile Lys Gly Leu Phe Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr
      865              870              875              880
Met Gln Ile Gly Glu Ser Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro
      885              890              895
Ile Ile Trp Leu Lys Pro Gly Glu Ser Ala Met Phe Leu His Gln Asp
      900              905              910
Ile Tyr Val Cys Pro Val Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu
      915              920              925
Ser Thr Thr Gly His Ser Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro
      930              935              940
Thr Asp Met Pro Gln Lys His Trp Ile Asn Arg Gly Val Ala Ser Leu
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Cys Gln Leu Asp Asn
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<210> 4651

<211> 869

<212> DNA

<213> Homo sapiens

<400> 4651

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<210> 4652

<211> 289

<212> PRT

<213> Homo sapiens

<400> 4652

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Gly Ala Ala Ser Ala Val Ser Leu Ala Gly Ala Ser Leu Val Leu Ser
35     40     45
Leu Leu Gln Arg Val Ala Ser Tyr Ala Arg Lys Trp Gln Gln Met Arg
50     55     60
Pro Ile Pro Thr Val Ala Arg Ala Tyr Pro Leu Val Gly His Ala Leu
65     70     75     80
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Thr Glu Glu Tyr Arg His Met Pro Leu Leu Lys Leu Trp Val Gly Pro

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<210> 4653
<211> 1276
<212> DNA
<213> Homo sapiens
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<210> 4654

<211> 255

<212> PRT

<213> Homo sapiens

<400> 4654

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Glu	Thr	Asn	Thr	Glu	Asp	Leu	Phe	Leu	Glu	Glu	Ala	Ala	Ser	Leu	Val
		35				40					45				
Lys	Glu	Arg	Pro	Ser	Arg	Ala	Arg	Gly	Ser	Pro	Phe	Val	Arg	Ser	
	50				55				60						
Gly	Thr	Ile	Val	Arg	Ser	Gln	Thr	Phe	Ser	Pro	Gly	Ala	Arg	Ser	Gln
65				70					75					80	
Tyr	Val	Cys	Arg	Leu	Tyr	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Pro
			85					90					95		
Arg	Lys	Ser	Pro	Phe	Val	Arg	Asn	Thr	Leu	Glu	Arg	Arg	Thr	Leu	Arg
			100				105						110		
Tyr	Lys	Gln	Ser	Cys	Arg	Ser	Ser	Leu	Ala	Glu	Leu	Met	Ala	Arg	Thr
		115				120					125				
Ser	Leu	Asp	Leu	Glu	Leu	Asp	Leu	Gln	Ala	Ser	Arg	Thr	Arg	Gln	Arg
	130				135					140					
Gln	Leu	Asn	Glu	Glu	Leu	Cys	Ala	Leu	Arg	Glu	Leu	Arg	Gln	Arg	Leu
145				150					155					160	
Glu	Asp	Ala	Gln	Leu	Arg	Gly	Gln	Thr	Asp	Leu	Pro	Pro	Trp	Val	Leu
			165					170					175		
Arg	Asp	Glu	Arg	Leu	Arg	Gly	Leu	Leu	Arg	Glu	Ala	Glu	Arg	Gln	Thr
		180					185					190			
Arg	Gln	Thr	Lys	Leu	Asp	Tyr	Arg	His	Glu	Gln	Ala	Ala	Glu	Lys	Met

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Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His		
210	215	220
Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe		
225	230	235
Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val		
245	250	255

<210> 4655

<211> 456

<212> DNA

<213> Homo sapiens

<400> 4655

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<210> 4656

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4656

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Gln Gln Gln Arg Gln Arg Leu Ala Arg His Gly Val Arg Arg Ala Ala		
35	40	45
Pro Arg Arg Leu Val Val Leu Glu Asp Glu Val Glu Leu Asp Leu Gln		
50	55	60
His Glu Asp Val Lys Glu Pro Gln Asp His Gly Val Ala Ala Leu Gly		
65	70	75
Arg Ala His Leu Gly Ala His Pro His Gly His Val Ala Gln His Gln		
85	90	95
Gln Glu Ala His Val Ala His Gln His Asp Asp Ala His Ala Asp Leu		
100	105	110
Ala Arg Ala Leu Val Leu Leu His Gln Val Arg Val His Asp Gly His		
115	120	125
Ala Ala His Asp His Gln Arg Gly Gln Ala His Val Ala Pro Val Arg		

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 Gly Arg Gln His His Gly Arg Pro
 145 150

<210> 4657
 <211> 723
 <212> DNA
 <213> Homo sapiens

<400> 4657
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 180
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 240
 ggcgtagaga ttgaggaagg ggggtgtgaaa gtgaagctga cccttgtgga cacacctggc
 300
 tttggggact cagtggactg ctctgactgc tggcttcggg tggtgaaatt catcgaggag
 360
 caatttgagc agtaccttag ggatgagagt ggctgaacc ggaagaacat ccaggactcc
 420
 cgagtcact gctgcctcta ctcatctca cccttcggcc gggctccggc ccctagatgt
 480
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 540
 gccctgatgc cccaggaaac ccaggccctc aagcagaaga tccgggatca gttgaaggaa
 600
 gaggagatcc acatctacca gttccccgaa tgtgactctg atgaagatga agacttcaag
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 720
 gta
 723

<210> 4658
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 4658
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 20 25 30
 Glu Ser Gly Leu Gly Lys Ser Thr Leu Ile Asn Ser Leu Phe Leu Thr
 35 40 45
 Asn Leu Tyr Glu Asp Arg Gln Val Pro Glu Ala Ser Ala Arg Leu Thr
 50 55 60
 Gln Thr Leu Ala Ile Glu Arg Arg Gly Val Glu Ile Glu Glu Gly Gly
 65 70 75 80
 Val Lys Val Lys Leu Thr Leu Val Asp Thr Pro Gly Phe Gly Asp Ser

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      85              90              95
Val Asp Cys Ser Asp Cys Trp Leu Pro Val Val Lys Phe Ile Glu Glu
      100              105              110
Gln Phe Glu Gln Tyr Leu Arg Asp Glu Ser Gly Leu Asn Arg Lys Asn
      115              120              125
Ile Gln Asp Ser Arg Val His Cys Cys Leu Tyr Phe Ile Ser Pro Phe
      130              135              140
Gly Arg Ala Pro Ala Pro Arg Cys Gly Phe Leu Arg Ala Ile His Glu
      145              150              155              160
Lys Val Asn Ile Ile Pro Val Ile Gly Lys Ala Asp Ala Leu Met Pro
      165              170              175
Gln Glu Thr Gln Ala Leu Lys Gln Lys Ile Arg Asp Gln Leu Lys Glu
      180              185              190
Glu Glu Ile His Ile Tyr Gln Phe Pro Glu Cys Asp Ser Asp Glu Asp
      195              200              205
Glu Asp Phe Lys Arg Gln Asp Ala Glu Met Lys Glu Ser Ile Pro Phe
      210              215              220
Ala Val Val Gly Ser Cys Glu Val Val
      225              230

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<210> 4659

<211> 864

<212> DNA

<213> Homo sapiens

<400> 4659

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120
ggcgccggtg gtcgttgtga cccaacctgg agtcgggtccc ggtccggccc cccagaactc
180
caactggcag acaggcatgt gtgactgttt cagcgactgc ggagtctgtc tctgtggcac
240
attttgtttc ccgtgccttg ggtgtcaagt tgcagctgat atgaatgaat gctgtctgtg
300
tggaacaagc gtcgcaatga ggactctcta caggaccgga tatggcatcc ctggatctat
360
ttgtgatgac tatatggcaa ctctttgctg tcctcattgt actctttgcc aaatcaagag
420
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480
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540
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600
tttattataa atgaatgttg tccctgaact tagctaaatg gtgcaactta gtttctcctt
660
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720
tataaaccaa atgaaatatt ttactgataa gattcttcat gcttctttgc tctccttaaa
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840

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tttccttttt cttttttttt ttg

864

<210> 4660

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4660

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 1              5              10              15
Asp Gly Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala
      20              25              30
Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser Thr His Gly Ser
      35              40              45
Pro Ser Val Asp Ile Ser Leu Asp Leu Ala Lys Ser Thr Met Arg Thr
 50              55              60
Ala Lys Ser Cys His Ile Val Ile Thr Asn Arg Ser Arg Asp Ala Ile
65              70              75              80
Ser Gly Pro Val Glu Ser Pro His Cys Asp Ala Cys Ser Thr Gln Thr
      85              90              95
Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu Thr
      100             105             110
Lys Cys Ala Thr Glu Thr Asp Ser Ala Val Ala Glu Thr Val Thr His
      115             120             125
Ala Cys Leu Pro Val Gly Val Leu Gly Gly Arg Thr Gly Thr Asp Ser
      130             135             140
Arg Leu Gly His Asn Asp His Arg Arg Leu Ser Leu His Phe Gln Cys
145             150             155             160
Arg Ala Phe His Val Val Phe Ile Cys Gly Glu Ile Leu Ser Gln Ala
      165             170             175
Thr Arg His Phe Leu Leu Gly Thr Leu Phe Thr Asn Phe His Cys Phe
      180             185             190
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<210> 4661

<211> 153

<212> DNA

<213> Homo sapiens

<400> 4661

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tttgaggacc ctcaccatgg ccatgggcag ttc
153
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<210> 4662

<211> 51

<212> PRT

<213> Homo sapiens

<400> 4662

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Arg Ile Cys Met Pro Leu Thr Val Asp Glu Tyr Lys Ile Gly Gln Leu
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1	5	10	15
Tyr Met Ile Ser Lys His Ser His Glu Gln Ser Asp Arg Gly Glu Gly			
	20	25	30
Val Glu Val Val Gln Asn Glu Pro Phe Glu Asp Pro His His Gly His			
	35	40	45
Gly Gln Phe			
50			

<210> 4663

<211> 1550

<212> DNA

<213> Homo sapiens

<400> 4663

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120
cagacgggatg acccaggccc cctcgatggc cctgacctcc aggccagcca ctgagagctc
180
caggtgcccc cccctggcag agcgggccta ctgaacacct ctggtaccaa aggccttagaa
240
tggttcctct caactcccac catgaattct tacttttata agttcatgat caaccttctc
300
aagagattca gcagcgaacg gaagctcctg gaggtcagag gccctttcat catcaggcag
360
ctgtgcctcc tgctgaatgc ggagaacatc ttccactcaa tggcagacat cctgctgcgg
420
gaggaggacc tcaagttcgc ctcgaccatg gtccacgccc tcaacacccat cctgctgacc
480
tccacagagc tcttccagct aaggaaccag ctgaaggacc tgaagaccct ggagagccag
540
aacctgttct gctgcctgta ccgctcctgg tgccacaacc cagtcaccac ggtgtccctc
600
tgcttcctca cccagaacta cgggcacgcc tatgacctca tccagaagtt tggggacctg
660
gaggtcaccc tggacttcct cgcagaggtg gacaagctgg tgcagctgat tgagtgcgcc
720
atcttcacat atctgcgcct gcagctgctg gacgtgaaga acaacccta cctgatcaag
780
gccctctacg gcctgctcat gctcctgccg cagagcagcg ccttccagct gctctcgac
840
cggctccagt gcgtgcccac ccctgagctg ctgcagaccg aagacagtct aaaggcagcc
900
ccaagtccc agaaagctga ctcccctagc atcgactacg cagagctgct gcagcacttt
960
gagaaggtcc agaacaagca cctggaagtg cggcaccagc ggagcgggcg tggggaccac
1020
ctggaccgga gggttgtcct ctgacaggcc tggcaggag gagggcccac cgagtgggtcc
1080
catgaaacac taagggtcgt cagccctcc cgaggagctc aaggacctgc ctgtcaggac
1140
cagggtggg cctgccaacc cagggcagtg ttggggccgg aggtctgtgt gtctgcccac
1200

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gctcctctca gaggccagtc cccaggcctc cagcgctgtc agctgcaccc tggcattctc
 1260
 acagagctgg ctgccacccc agtggggggc tatagcctca gagaccactc atcctctgga
 1320
 atcaacctct ttctaatacc ctcttgga aaagagcttg cctcctccca gcacactaga
 1380
 gctctggcct tgtgtgtata tgtatacata cgtgaacaca tgcctgtgtg tgtgtgtgtg
 1440
 tgtgtacttg tatgcacgta ggcaccagca caaagatctg aatgatgcac cccaccccca
 1500
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 1550

<210> 4664

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4664

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			20					25					30		
Glu	Ile	Ala	Ser	Ser	Pro	Ala	Gly	Gln	Thr	Asp	Asp	Pro	Gly	Pro	Leu
			35				40					45			
Asp	Gly	Pro	Asp	Leu	Gln	Ala	Ser	His	Ser	Glu	Leu	Gln	Val	Pro	Thr
	50				55					60					
Pro	Gly	Arg	Ala	Gly	Leu	Asn	Thr	Ser	Gly	Thr	Lys	Gly	Leu	Glu	
65				70					75				80		
Cys	Ser	Pro	Ser	Thr	Pro	Thr	Met	Asn	Ser	Tyr	Phe	Tyr	Lys	Phe	Met
				85				90					95		
Ile	Asn	Leu	Leu	Lys	Arg	Phe	Ser	Ser	Glu	Arg	Lys	Leu	Leu	Glu	Val
			100				105					110			
Arg	Gly	Pro	Phe	Ile	Ile	Arg	Gln	Leu	Cys	Leu	Leu	Leu	Asn	Ala	Glu
		115				120				125					
Asn	Ile	Phe	His	Ser	Met	Ala	Asp	Ile	Leu	Leu	Arg	Glu	Glu	Asp	Leu
	130				135					140					
Lys	Phe	Ala	Ser	Thr	Met	Val	His	Ala	Leu	Asn	Thr	Ile	Leu	Leu	Thr
145				150				155					160		
Ser	Thr	Glu	Leu	Phe	Gln	Leu	Arg	Asn	Gln	Leu	Lys	Asp	Leu	Lys	Thr
			165				170					175			
Leu	Glu	Ser	Gln	Asn	Leu	Phe	Cys	Cys	Leu	Tyr	Arg	Ser	Trp	Cys	His
		180				185						190			
Asn	Pro	Val	Thr	Thr	Val	Ser	Leu	Cys	Phe	Leu	Thr	Gln	Asn	Tyr	Arg
		195				200					205				
His	Ala	Tyr	Asp	Leu	Ile	Gln	Lys	Phe	Gly	Asp	Leu	Glu	Val	Thr	Val
	210				215					220					
Asp	Phe	Leu	Ala	Glu	Val	Asp	Lys	Leu	Val	Gln	Leu	Ile	Glu	Cys	Pro
225				230				235					240		
Ile	Phe	Thr	Tyr	Leu	Arg	Leu	Gln	Leu	Leu	Asp	Val	Lys	Asn	Asn	Pro
		245					250					255			
Tyr	Leu	Ile	Lys	Ala	Leu	Tyr	Gly	Leu	Leu	Met	Leu	Leu	Pro	Gln	Ser
	260					265						270			
Ser	Ala	Phe	Gln	Leu	Leu	Ser	His	Arg	Leu	Gln	Cys	Val	Pro	Asn	Pro

275		280		285
Glu Leu Leu Gln Thr Glu Asp Ser Leu Lys Ala Ala Pro Lys Ser Gln				
290		295		300
Lys Ala Asp Ser Pro Ser Ile Asp Tyr Ala Glu Leu Leu Gln His Phe				
305		310		315
Glu Lys Val Gln Asn Lys His Leu Glu Val Arg His Gln Arg Ser Gly				
	325		330	335
Arg Gly Asp His Leu Asp Arg Arg Val Val Leu				
340		345		

<210> 4665

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 4665

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120
aaagagaaaag agccagtggg tgttgagaca gtagaagaga aaaaggaacc taccctagtg
180
tgtccacctt tacgaagccg agcatacaca ccacctgaag atctccagag tcgtttggaa
240
tcttacgtta aagaagtttt tgggtcatct cttcctagta attggcaaga catctccctg
300
gaagatagtc gtctaaagtt caatcttctg gctcatttag ctgatgactt gggtcatgta
360
gtccctaact ccagactcca ccagatgtgc aggggtagag atgttcttga tttctataat
420
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480
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540
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600
cagaactggt ctctaaaccc actttttctg tagaggaatg tatcatcttt ttttttctca
660
tattacaaat ggacaaataa cggactttct attttcatat ttgctgaaac cattttttta
720
atgaaattag gtcattatct atgaaaagtt ttgagagggc actgtcaact tgggtttaag
780
acaggaggac attgcaagtt cacacctttc ataagcataa agtagttgca agaaagtatt
840
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900
ttttattaga tagataccta taaaagaaac ataaaagtat gttgtgtatt actgacagtt
960
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1020
aaaaaaaaaa aaaaaaaaaa aaa
1043

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<210> 4666

<211> 167
 <212> PRT
 <213> Homo sapiens

<400> 4666
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 20 25 30
 Arg Glu Phe Trp Ser Arg Phe Arg Lys Glu Lys Glu Pro Val Val Val
 35 40 45
 Glu Thr Val Glu Glu Lys Lys Glu Pro Ile Leu Val Cys Pro Pro Leu
 50 55 60
 Arg Ser Arg Ala Tyr Thr Pro Pro Glu Asp Leu Gln Ser Arg Leu Glu
 65 70 75 80
 Ser Tyr Val Lys Glu Val Phe Gly Ser Ser Leu Pro Ser Asn Trp Gln
 85 90 95
 Asp Ile Ser Leu Glu Asp Ser Arg Leu Lys Phe Asn Leu Leu Ala His
 100 105 110
 Leu Ala Asp Asp Leu Gly His Val Val Pro Asn Ser Arg Leu His Gln
 115 120 125
 Met Cys Arg Val Arg Asp Val Leu Asp Phe Tyr Asn Val Pro Ile Gln
 130 135 140
 Asp Arg Ser Lys Phe Asp Glu Leu Ser Ala Ser Asn Leu Pro Pro Asn
 145 150 155 160
 Leu Lys Ile Thr Trp Ser Tyr
 165

<210> 4667
 <211> 1031
 <212> DNA
 <213> Homo sapiens

<400> 4667
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 120
 cctctgctgg aggggaaagc ccgctcctgt tttgctatga ccgagcccca gggtgcctct
 180
 tcagatgcca ccaacattga ggcttccatc agagaggagg acagcttcta tgtcataaac
 240
 ggtcacaaat ggtggatcac aggcacctctg gatcctcggt gccaaactctg tgtgtttatg
 300
 ggaaaaacag acccacatgc accaagacac cggcagcagt ctgtgctctt ggttcccatg
 360
 gataccccag ggataaaaat catccggcct ctgacggtgt atggactgga agatgcacca
 420
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 480
 ggccctggcc gaggctttga gatcgcccag ggcagactgg gccccggcag gatccatcac
 540
 tgcattgaggc tgatcgggtt ctgagagagg gccctggcac tcatgaaggc ccgctgaggt
 600

gctttccccc gcaccagca ctgactcaga accaccacct tctgctttgc tgcgggactt
 660
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 720
 aagaagttgc attcctgtct gctttgcacg tgctactttg ctgcagtttg gattcagagc
 780
 agaatggacc ccactctgtc gaggtgacct gaagggaac gccaggctct gtagcagcag
 840
 agggcaaggt tccaaggtgt aaaggtcatg ctgctagcac attattaaaa atcagtctgg
 900
 gtgcaatggc tcacagctat aatcccagta ctttgggagg tctaggtagg agggttgctt
 960
 gaagccaagc atttgagacc agcctaggcg aaaaagagag actcagtcct tacaacaaaa
 1020
 aaaaaaaaaa a
 1031

<210> 4668

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4668

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Ala	Pro	Asp	Thr	Gly	Asn	Met	Glu	Leu	Leu	Val	Arg	Tyr	Gly	Thr	Glu
		20						25					30		
Ala	Gln	Lys	Ala	Arg	Trp	Leu	Ile	Pro	Leu	Leu	Glu	Gly	Lys	Ala	Arg
		35				40						45			
Ser	Cys	Phe	Ala	Met	Thr	Glu	Pro	Gln	Val	Ala	Ser	Ser	Asp	Ala	Thr
	50					55					60				
Asn	Ile	Glu	Ala	Ser	Ile	Arg	Glu	Glu	Asp	Ser	Phe	Tyr	Val	Ile	Asn
65					70				75					80	
Gly	His	Lys	Trp	Trp	Ile	Thr	Gly	Ile	Leu	Asp	Pro	Arg	Cys	Gln	Leu
			85					90					95		
Cys	Val	Phe	Met	Gly	Lys	Thr	Asp	Pro	His	Ala	Pro	Arg	His	Arg	Gln
			100					105					110		
Gln	Ser	Val	Leu	Leu	Val	Pro	Met	Asp	Thr	Pro	Gly	Ile	Lys	Ile	Ile
			115				120					125			
Arg	Pro	Leu	Thr	Val	Tyr	Gly	Leu	Glu	Asp	Ala	Pro	Gly	Gly	His	Gly
			130			135					140				
Glu	Val	Arg	Phe	Glu	His	Val	Arg	Val	Pro	Lys	Glu	Asn	Met	Val	Leu
145					150					155				160	
Gly	Pro	Gly	Arg	Gly	Phe	Glu	Ile	Ala	Gln	Gly	Arg	Leu	Gly	Pro	Gly
			165					170					175		
Arg	Ile	His	His	Cys	Met	Arg	Leu	Ile	Gly	Phe	Ser	Glu	Arg	Ala	Leu
			180					185					190		
Ala	Leu	Met	Lys	Ala	Arg	Val	Ser	Ala	Phe	Pro	Arg	Thr	Gln	His	
		195					200					205			

<210> 4669

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4669
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 120
 gacatgaaca taaaaaaaca gattcaggaa cagcaccagg ctgccattat tattcagaag
 180
 cattgtaaag cctttaaaat aaggaagcat tatctccaca ttagagcaac agtagtttct
 240
 attcaaagaa gatacagaaa actaactgca gtgcgtaccc aagcagttat ttgtatacag
 300
 tcttattaca gagggctttaa agtacgaaag gatattcaaa atatgcaccg ggctgccaca
 360
 ctaattcagt cattctatcg aatgcacagg gccaaagttg attattaaac aaagaaaact
 420
 gcaattgtgg ttatacagaa ttattatagg ttgtatgtta gagtaaaaac agaaagaaaa
 480
 aacttttttag cagttcagaa atctgtccga actattcagg ctgcttttag aggcattgaaa
 540
 gttagacaaa aattgaaaaa atgtatcaga ggaaaagatg gcagccattg ttaaccaatc
 600
 tgcaactctgc tgttacagaa gtaaaactca gtatgaagct gttcaaagtg aaggtgttat
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<210> 4670

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4670

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Asn	Lys	Lys	Lys	Gln	Lys	Val	Phe	Gln	His	Asn	Glu	Leu	Lys	Lys	Glu
			20					25					30		
Thr	Cys	Val	Gln	Ala	Gly	Phe	Gln	Asp	Met	Asn	Ile	Lys	Lys	Gln	Ile
		35				40						45			
Gln	Glu	Gln	His	Gln	Ala	Ala	Ile	Ile	Ile	Gln	Lys	His	Cys	Lys	Ala
		50				55					60				
Phe	Lys	Ile	Arg	Lys	His	Tyr	Leu	His	Ile	Arg	Ala	Thr	Val	Val	Ser
65					70					75					80
Ile	Gln	Arg	Arg	Tyr	Arg	Lys	Leu	Thr	Ala	Val	Arg	Thr	Gln	Ala	Val
			85					90					95		
Ile	Cys	Ile	Gln	Ser	Tyr	Tyr	Arg	Gly	Phe	Lys	Val	Arg	Lys	Asp	Ile
		100						105					110		
Gln	Asn	Met	His	Arg	Ala	Ala	Thr	Leu	Ile	Gln	Ser	Phe	Tyr	Arg	Met
		115					120						125		
His	Arg	Ala	Lys	Val	Asp	Tyr									
		130				135									

<210> 4671

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4671

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120
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180
taggccaggc tgctgcagt gtttcagcat ctatccgag ggatccacgg ggaagctggt
240
gtgcgccgga taaagatggc aaccgccgat gagattgtga aactcatgct cgaccacatg
300
acaaacacca ccaacgcgtc ccatgtgcct gtgcagcccg gctcctcagt tgtgatgatg
360
gtcaacaacc tgggtggcct gtcattcctg gaactgggca tcatagccga cgctaccgtc
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480
gcactggaga tgctggcat ttctctcacc ctctgctgg tggatgagcc tctcctgaaa
540
ctgatagatg ctgaaaccac tgcagcagcc tggcctcgaa gcggatggcg ctggtgctgg
600
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657

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<210> 4672

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4672

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Ala Arg Leu Leu Gln Trp Phe Gln His Leu Ser Ala Gly Ile His Gly
1           5           10          15
Glu Ala Gly Val Arg Arg Ile Lys Met Ala Thr Ala Asp Glu Ile Val
20          25          30
Lys Leu Met Leu Asp His Met Thr Asn Thr Thr Asn Ala Ser His Val
35          40          45
Pro Val Gln Pro Gly Ser Ser Val Val Met Met Val Asn Asn Leu Gly
50          55          60
Gly Leu Ser Phe Leu Glu Leu Gly Ile Ile Ala Asp Ala Thr Val Arg
65          70          75          80
Ser Leu Glu Gly Arg Gly Val Lys Ile Ala Arg Ala Leu Val Gly Thr
85          90          95
Phe Met Ser Ala Leu Glu Met Pro Gly Ile Ser Leu Thr Leu Leu Leu
100         105         110
Val Asp Glu Pro Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala
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Leu Ser Trp Ala Trp Arg Asn Thr
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<210> 4673
<211> 1335
<212> DNA
<213> Homo sapiens

<400> 4673
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<210> 4674

<211> 402

<212> PRT

<213> Homo sapiens

<400> 4674

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Ala Asn Ser Leu Ala Ser Ser Gly Pro His Asn Leu Thr Tyr Pro Leu
 35          40          45
Gly Pro Arg Asn Glu Asp Leu Ser Leu Asp Tyr Ala Ser Gln Pro Ala
 50          55          60
Asn Leu Gln Phe Pro His Ile Met Pro Leu Ala Glu Asp Ile Lys Gly
 65          70          75          80
Ser Cys Phe Gln Ser Gly Asn Lys Arg Asn His Glu Pro Phe Ile Ala
 85          90          95
Pro Glu Arg Phe Gly Asn Ser Ser Val Gly Phe Gly Ser Asn Ser His
100          105          110
Ser Gln Ala Pro Glu Lys Val Thr Leu Leu Val Asp Gly Thr Arg Phe
115          120          125
Val Val Asn Pro Gln Ile Phe Thr Ala His Pro Asp Thr Met Leu Gly
130          135          140
Arg Met Phe Gly Pro Gly Arg Glu Tyr Asn Phe Thr Arg Pro Asn Glu
145          150          155          160
Lys Gly Glu Tyr Glu Ile Ala Glu Gly Ile Ser Ala Thr Val Phe Arg
165          170          175
Thr Val Leu Asp Tyr Tyr Lys Thr Gly Ile Ile Asn Cys Pro Asp Gly
180          185          190
Ile Ser Ile Pro Asp Leu Arg Asp Thr Cys Asp Tyr Leu Cys Ile Asn
195          200          205
Phe Asp Phe Asn Thr Ile Arg Cys Gln Asp Leu Ser Ala Leu Leu His
210          215          220
Glu Leu Ser Asn Asp Gly Ala His Lys Gln Phe Asp His Tyr Leu Glu
225          230          235          240
Glu Leu Ile Leu Pro Ile Met Val Gly Cys Ala Lys Lys Gly Glu Arg
245          250          255
Glu Cys His Ile Val Val Leu Thr Asp Glu Asp Ser Val Asp Trp Asp
260          265          270
Glu Asp His Pro Pro Pro Met Gly Glu Glu Tyr Ser Gln Ile Leu Tyr
275          280          285
Ser Ser Lys Leu Tyr Arg Phe Phe Lys Tyr Ile Glu Asn Arg Asp Val
290          295          300
Ala Lys Thr Val Leu Lys Glu Arg Gly Leu Lys Asn Ile Arg Ile Gly
305          310          315          320
Ile Glu Gly Tyr Pro Thr Cys Lys Glu Lys Ile Lys Arg Arg Pro Gly
325          330          335
Gly Arg Ser Glu Val Ile Tyr Asn Tyr Val Gln Arg Pro Phe Ile Gln
340          345          350
Met Ser Trp Glu Lys Glu Glu Gly Lys Ser Arg His Val Asp Phe Gln
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Cys Val Arg Ser Lys Ser Leu Thr Asn Leu Val Ala Ala Gly Asp Asp
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390

395

400

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<211> 2868
<212> DNA
<213> Homo sapiens

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<210> 4676

<211> 641

<212> PRT

<213> Homo sapiens

<400> 4676

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Glu Phe Asn Pro Ser Ser Ser Gly Arg Ser Ala Arg Thr Val Ser Ser
          35          40          45
Asn Ser Phe Cys Ser Asp Asp Thr Gly Cys Pro Ser Ser Gln Ser Val
          50          55          60
Ser Pro Val Lys Thr Pro Ser Asp Ala Gly Asn Ser Pro Ile Gly Phe
          65          70          75          80
Cys Pro Gly Ser Asp Glu Gly Phe Thr Arg Lys Lys Cys Thr Ile Gly
          85          90          95
Met Val Gly Glu Gly Ser Ile Gln Ser Ser Arg Tyr Lys Lys Glu Ser
          100         105         110
Lys Ser Gly Leu Val Lys Pro Gly Ser Glu Ala Asp Phe Ser Ser Ser
          115         120         125
Ser Ser Thr Gly Ser Ile Ser Ala Pro Glu Val His Met Ser Thr Ala
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Gly Ser Lys Arg Ser Ser Ser Ser Arg Asn Arg Gly Pro His Gly Arg
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Ser Asn Gly Ala Ser Ser His Lys Pro Gly Ser Ser Ser Ser Pro
          165         170         175
Arg Glu Lys Asp Leu Leu Ser Met Leu Cys Arg Asn Gln Leu Ser Pro
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Val Asn Ile His Pro Ser Tyr Ala Pro Ser Ser Pro Ser Ser Ser Asn
          195         200         205
Ser Gly Ser Tyr Lys Gly Ser Asp Cys Ser Pro Ile Met Arg Arg Ser
          210         215         220
Gly Arg Tyr Met Ser Cys Gly Glu Asn His Gly Val Arg Pro Pro Asn
          225         230         235         240
Pro Glu Gln Tyr Leu Thr Pro Leu Gln Gln Lys Glu Val Thr Val Arg
          245         250         255
His Leu Lys Thr Lys Leu Lys Glu Ser Glu Arg Arg Leu His Glu Arg
          260         265         270
Glu Ser Glu Ile Val Glu Leu Lys Ser Gln Leu Ala Arg Met Arg Glu
          275         280         285
Asp Trp Ile Glu Glu Glu Cys His Arg Val Glu Ala Gln Leu Ala Leu
          290         295         300
Lys Glu Ala Arg Lys Glu Ile Lys Gln Leu Lys Gln Val Ile Glu Thr
          305         310         315         320
Met Arg Ser Ser Leu Ala Asp Lys Asp Lys Gly Ile Gln Lys Tyr Phe
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Val Asp Ile Asn Ile Gln Asn Lys Lys Leu Glu Ser Leu Leu Gln Ser
          340         345         350
Met Glu Met Ala His Ser Gly Ser Leu Arg Asp Glu Leu Cys Leu Asp
          355         360         365
Phe Pro Cys Asp Ser Pro Glu Lys Ser Leu Thr Leu Asn Pro Pro Leu
          370         375         380
Asp Thr Met Ala Asp Gly Leu Ser Leu Glu Glu Gln Val Thr Gly Glu

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465          470          475          480
Gln Ser Val Leu Gln Lys Leu Gln Asp Pro Cys Pro Ser Ser Leu Ala
          485          490          495
Ser Pro Asp Glu Ser Glu Pro Asp Ser Met Glu Ser Phe Pro Glu Ser
          500          505          510
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Ser Ser Cys Lys Pro Pro His Glu Arg Ala Gly Xaa Phe Ala Ala Cys
545          550          555          560
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Val Arg Gln Tyr Trp Ser Ser Ser Phe Leu Val Asp Leu Leu Ala Val
          580          585          590
Ala Ala Pro Val Val Pro Thr Val Leu Trp Ala Phe Ser Thr Gln Arg
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Gly Gly Thr Asp Pro Val Tyr Asn Ile Gly Ala Leu Leu Arg Gly Cys
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<210> 4677

<211> 940

<212> DNA

<213> Homo sapiens

<400> 4677

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<211> 133

<212> PRT

<213> Homo sapiens

<400> 4678

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			20					25					30		
Arg	Thr	Val	Phe	Ile	Trp	Phe	Val	Gly	Gln	Leu	Leu	Gly	Gly	Glu	Leu
		35				40						45			
Lys	Gly	Tyr	Ser	Lys	Thr	Asn	Thr	Thr	Ser	Ser	Arg	Pro	Ala	Ser	Ser
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Arg	Gly	Ser	Leu	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Leu	Thr	Lys
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Asp	Ala	Leu	Pro	Ser	Leu	Lys	Ser	Asp	Ser	Thr	Thr	Ile	Thr	Ser	
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Gly	Leu	Val	Phe	Pro	Phe	Arg	Ser	Leu	Cys	Val	Asn	Pro	Ala	Lys	Ser
		100						105					110		
Ser	Val	Ser	Glu	Ser	Val	Ser	Ser	Ile	Lys	Ile	Leu	Leu	Ser	Ser	Ser
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<212> DNA

<213> Homo sapiens

<400> 4679

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 <211> 112
 <212> PRT
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<210> 4682

<211> 153

<212> PRT

<213> Homo sapiens

<400> 4682

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 Phe Leu Phe His Gln Thr Thr Arg Gln Lys Asn Leu Ser Phe Leu Pro
 35 40 45
 Pro Phe Ser Phe Phe Pro Ser Cys Thr His Leu Glu Asn Phe Thr Phe
 50 55 60
 Leu Glu Ser Pro Gln Asn Asn Thr Lys Val Ile Val Gly Ala Thr Gly
 65 70 75 80
 Phe Met Leu Tyr Cys Gly Ala Arg Gly Lys Thr Cys Leu Tyr Ala Gly
 85 90 95
 Asn Thr His Asn His Ser Phe Arg Phe Val Cys Leu Met Val Ile Cys
 100 105 110
 His Lys Arg Asp Leu Gln Lys Gln Gly Ala Leu Val Asn Val Gln Tyr
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<210> 4683
<211> 3246
<212> DNA
<213> Homo sapiens

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<210> 4684
 <211> 385
 <212> PRT
 <213> Homo sapiens

<400> 4684
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 35 40 45
 Gln Thr His Gly Thr Ala Arg Ile Gly Thr His Asn Gly Thr Phe His
 50 55 60
 Cys Asp Glu Ala Leu Ala Cys Ala Leu Leu Arg Leu Leu Pro Glu Tyr
 65 70 75 80
 Arg Asp Ala Glu Ile Val Arg Thr Arg Asp Pro Glu Lys Leu Ala Ser
 85 90 95
 Cys Asp Ile Val Val Asp Val Gly Gly Glu Tyr Asp Pro Arg Arg His
 100 105 110
 Arg Tyr Asp His His Gln Arg Ser Phe Thr Glu Thr Met Ser Ser Leu
 115 120 125
 Ser Pro Gly Lys Pro Trp Gln Thr Lys Leu Ser Ser Ala Gly Leu Ile
 130 135 140
 Tyr Leu His Phe Gly His Lys Leu Leu Ala Gln Leu Leu Gly Thr Ser
 145 150 155 160
 Glu Glu Asp Ser Met Val Gly Thr Leu Tyr Asp Lys Met Tyr Glu Asn
 165 170 175
 Phe Val Glu Glu Val Asp Ala Val Asp Asn Gly Ile Ser Gln Trp Ala
 180 185 190
 Glu Gly Glu Pro Arg Tyr Ala Leu Thr Thr Thr Leu Ser Ala Arg Val
 195 200 205
 Ala Arg Leu Asn Pro Thr Trp Asn His Pro Asp Gln Asp Thr Glu Ala
 210 215 220
 Gly Phe Lys Arg Ala Met Asp Leu Val Gln Glu Glu Phe Leu Gln Arg
 225 230 235 240
 Leu Asp Phe Tyr Gln His Ser Trp Leu Pro Ala Arg Ala Leu Val Glu
 245 250 255
 Glu Ala Leu Ala Gln Arg Phe Gln Val Asp Pro Ser Gly Glu Ile Val
 260 265 270
 Glu Leu Ala Lys Gly Ala Cys Pro Trp Lys Glu His Leu Tyr His Leu
 275 280 285
 Glu Ser Gly Leu Ser Pro Pro Val Ala Ile Phe Phe Val Ile Tyr Thr
 290 295 300
 Asp Gln Ala Gly Gln Trp Arg Ile Gln Cys Val Pro Lys Glu Pro His

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305          310          315          320
Ser Phe Gln Ser Arg Leu Pro Leu Pro Glu Pro Trp Arg Gly Leu Arg
          325          330          335
Asp Glu Ala Leu Asp Gln Val Ser Gly Ile Pro Gly Cys Ile Phe Val
          340          345          350
His Ala Ser Gly Phe Ile Gly Gly His Arg Thr Arg Glu Gly Ala Leu
          355          360          365
Ser Met Ala Arg Ala Thr Leu Ala Gln Arg Ser Tyr Leu Pro Gln Ile
          370          375          380
Ser
385

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<210> 4685

<211> 618

<212> DNA

<213> Homo sapiens

<400> 4685

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180
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240
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300
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420
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480
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<210> 4686

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4686

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Gly Leu Ser Asp His Pro His Val His Thr Ala Ser Arg Ala Ala Ala
1          5          10          15
Asp Ala Arg Gly Arg Ala Gly His Arg Ser Ala Ala Ala Ser Asn Leu
          20          25          30
Ser Gly Leu Ser Leu Gln Glu Ala Gln Gln Ile Leu Asn Val Ser Lys
          35          40          45
Leu Ser Pro Glu Glu Val Gln Lys Asn Tyr Glu His Leu Phe Lys Val

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      50              55              60
Asn Asp Lys Ser Val Gly Gly Ser Phe Tyr Leu Gln Ser Lys Val Val
65              70              75              80
Arg Ala Lys Glu Arg Leu Asp Glu Glu Leu Lys Ile Gln Ala Gln Glu
      85              90              95
Asp Arg Glu Lys Gly Gln Met Pro His Thr
      100              105

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<210> 4687

<211> 309

<212> DNA

<213> Homo sapiens

<400> 4687

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180
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300
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309

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<210> 4688

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4688

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Met Asp Ile Pro Pro Leu Ala Gly Lys Ile Ala Ala Leu Ser Leu Ser
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Ala Leu Pro Val Ser Tyr Ala Leu Asn His Val Ser Ala Leu Ser His
      20              25              30
Pro Leu Trp Val Ala Leu Met Ser Ala Leu Ile Leu Gly Leu Leu Phe
      35              40              45
Val Ala Val Tyr Ser Leu Ser His Gly Glu Val Ser Tyr Asp Pro Leu
      50              55              60
Tyr Ala Gly Phe Ala Val Phe Ala Phe Thr Ser Gly Gly Asp Leu Ile
65              70              75              80
Ile Ala Leu Gln Glu Asp Ser Tyr Gly Gly
      85              90

```

<210> 4689

<211> 898

<212> DNA

<213> Homo sapiens

<400> 4689

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 300
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 420
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 480
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 780
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<210> 4690

<211> 299

<212> PRT

<213> Homo sapiens

<400> 4690

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Ala	Leu	Ser	Leu	Arg	Trp	Arg	Trp	Arg	Thr	Pro	Asp	Cys	Pro	Pro	Ala
			20					25					30		
Ser	Ala	Pro	Glu	Asp	Leu	Met	Phe	Leu	Leu	Asp	Ser	Ser	Ala	Ser	Val
		35					40					45			
Ser	His	Tyr	Glu	Phe	Ser	Arg	Val	Arg	Glu	Phe	Val	Gly	Gln	Leu	Val
	50					55					60				
Ala	Pro	Leu	Pro	Leu	Ala	Pro	Xaa	Ala	Leu	Arg	Ala	Ser	Leu	Val	His
65					70				75					80	
Val	Gly	Ser	Arg	Pro	Tyr	Thr	Glu	Phe	Pro	Phe	Gly	Gln	His	Ser	Ser
			85					90					95		
Gly	Glu	Ala	Ala	Gln	Asp	Ala	Val	Arg	Ala	Ser	Ala	Gln	Arg	Met	Gly
		100					105					110			
Asp	Thr	His	Thr	Gly	Leu	Ala	Leu	Val	Tyr	Ala	Lys	Glu	Gln	Leu	Phe
		115				120						125			
Ala	Glu	Ala	Ser	Gly	Ala	Arg	Pro	Gly	Val	Pro	Lys	Val	Leu	Val	Trp
	130					135					140				
Val	Thr	Asp	Gly	Gly	Ser	Ser	Asp	Pro	Val	Gly	Pro	Pro	Met	Gln	Glu

145 150 155 160
 Leu Lys Asp Leu Gly Val Thr Val Phe Ile Val Ser Thr Gly Arg Gly
 165 170 175
 Asn Phe Leu Glu Leu Ser Ala Ala Ala Ser Ala Pro Ala Glu Lys His
 180 185 190
 Leu His Phe Val Asp Val Asp Asp Leu His Ile Ile Val Gln Glu Leu
 195 200 205
 Arg Gly Ser Ile Leu Asp Ala Met Arg Pro Gln Gln Leu His Ala Thr
 210 215 220
 Glu Ile Thr Ser Ser Gly Phe Arg Leu Ala Trp Pro Pro Leu Leu Thr
 225 230 235 240
 Ala Asp Ser Gly Tyr Tyr Val Leu Glu Leu Val Pro Ser Ala Gln Pro
 245 250 255
 Gly Ala Ala Arg Arg Gln Gln Leu Pro Gly Asn Ala Thr Asp Trp Ile
 260 265 270
 Trp Ala Gly Leu Asp Pro Asp Thr Asp Tyr Asp Val Ala Leu Val Pro
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<210> 4691
 <211> 2375
 <212> DNA
 <213> Homo sapiens

<400> 4691
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<210> 4692

<211> 383

<212> PRT

<213> Homo sapiens

<400> 4692

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Phe Leu Phe His Ala Ile Asn Lys Pro Asn Ala Pro Ile Trp Leu Ile
      35           40           45
Leu Asn Glu Ala Gly Leu Tyr Trp Arg Ala Val Gly Asn Ser Thr Phe
 50           55           60
Ala Ile Ala Cys Leu Gln Arg Ala Leu Asn Leu Ala Pro Leu Gln Tyr
 65           70           75           80
Gln Asp Val Pro Leu Val Asn Leu Ala Asn Leu Leu Ile His Tyr Gly
      85           90           95
Leu His Leu Asp Ala Thr Lys Leu Leu Leu Gln Ala Leu Ala Ile Asn
      100          105          110
Ser Ser Glu Pro Leu Thr Phe Leu Ser Leu Gly Asn Ala Tyr Leu Ala
      115          120          125
Leu Lys Asn Ile Ser Gly Ala Leu Glu Ala Phe Arg Gln Ala Leu Lys
      130          135          140
Leu Thr Thr Lys Cys Pro Glu Cys Glu Asn Ser Leu Lys Leu Ile Arg
      145          150          155          160
Cys Met Gln Phe Tyr Pro Phe Leu Tyr Asn Ile Thr Ser Ser Val Cys
      165          170          175
Ser Gly Asn Cys His Glu Lys Thr Leu Asp Asn Ser His Asp Lys Gln
      180          185          190
Lys Tyr Phe Asp Asn Ser Gln Ser Leu Asp Ala Ala Glu Glu Glu Pro
      195          200          205
Ser Glu Arg Gly Thr Glu Glu Asp Pro Val Phe Ser Val Glu Asn Ser
      210          215          220
Gly Arg Asp Ser Asp Ala Leu Arg Leu Glu Ser Thr Val Val Glu Glu
      225          230          235          240
Ser Asn Gly Ser Asp Glu Met Glu Asn Ser Asp Glu Thr Lys Met Ser
      245          250          255
Glu Glu Ile Leu Ala Leu Val Asp Glu Phe Gln Gln Ala Trp Pro Leu
      260          265          270
Glu Gly Phe Gly Gly Ala Leu Glu Met Lys Gly Arg Arg Leu Asp Leu
      275          280          285
Gln Gly Ile Arg Val Leu Lys Lys Gly Pro Gln Asp Gly Val Ala Arg
      290          295          300
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      305          310          315          320
Trp Ile Thr Phe Gln Val Lys Arg Val Lys Lys Pro Lys Gly Asp His
      325          330          335
Lys Lys Thr Pro Gly Lys Lys Val Glu Thr Gly Gln Ile Glu Asn Gly
      340          345          350
His Arg Tyr Gln Ala Asn Leu Glu Ile Thr Gly Pro Lys Val Ala Ser
      355          360          365
Pro Gly Pro Gln Gly Leu Leu Asp Trp Lys Thr Arg Lys Val Pro
      370          375          380

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<210> 4693
 <211> 794
 <212> DNA
 <213> Homo sapiens

<400> 4693
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 180
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 420
 agaggcagga tgagcagctc agccttcagg tggagacact ttatctggat tccccagctg
 480
 tcattccattt gctatctcca actttcctgc caccttcate cttgcctccc ttcctgcaga
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 660
 ctgtggagtt ggtagatgcc tctgatctc agtattctct ctggcaatgt tccacggctt
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 780
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 794

<210> 4694
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 4694
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 20 25 30
 Asn Ser Gly Val Gly Gln Asp Gly Ser Leu Leu Ser Ser Pro Phe Leu
 35 40 45
 Lys Gly Phe Leu Ala Gly Tyr Val Val Ala Lys Leu Arg Ala Ser Ala
 50 55 60
 Val Leu Gly Phe Ala Val Gly Thr Cys Thr Gly Ile Tyr Ala Ala Gln
 65 70 75 80
 Ala Tyr Ala Val Pro Asn Val Glu Lys Thr Leu Arg Asp Tyr Leu Gln
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 Leu Leu Arg Lys Gly Pro Asp

100

<210> 4695

<211> 2209

<212> DNA

<213> Homo sapiens

<400> 4695

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240
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360
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420
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540
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660
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720
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1380

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 1800
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 2100
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 2209

<210> 4696

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4696

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 35 40 45
 Leu Leu Lys Leu Ile Asp Ala Glu Thr Thr Ala Ala Ala Trp Pro Asn
 50 55 60
 Val Ala Ala Val Ser Ile Thr Gly Arg Lys Arg Ser Arg Val Ala Pro
 65 70 75 80
 Ala Glu Pro Gln Glu Ala Pro Asp Ser Thr Ala Ala Xaa Glu Ala Gln
 85 90 95
 Pro Arg Ser Xaa Met Ala Leu Val Leu Glu Arg Val Cys Ser Thr Leu
 100 105 110
 Leu Gly Leu Glu Glu His Leu Asn Ala Leu Asp Arg Ala Ala Gly Asp
 115 120 125
 Gly Asp Cys Gly Thr Thr His Ser Arg Ala Ala Arg Ala Ile Gln Glu
 130 135 140
 Trp Leu Lys Glu Gly Pro Pro Pro Ala Ser Pro Ala Gln Leu Leu Ser


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145          150          155          160
Lys Leu Ser Val Leu Leu Leu Glu Lys Met Gly Gly Ser Ser Gly Ala
          165          170          175
Leu Tyr Gly Leu Phe Leu Thr Ala Ala Ala Gln Pro Leu Lys Ala Lys
          180          185          190
Thr Ser Leu Pro Ala Trp Ser Ala Ala Met Asp Ala Gly Leu Glu Ala
          195          200          205
Met Gln Lys Tyr Gly Lys Ala Ala Pro Gly Asp Arg Thr Met Leu Asp
          210          215          220
Ser Leu Trp Ala Ala Glu Gln Glu Leu Gln Ala Trp Lys Ser Pro Gly
225          230          235          240
Ala Asp Leu Leu Gln Val Leu Thr Lys Ala Val Lys Ser Ala Glu Ala
          245          250          255
Ala Ala Glu Ala Thr Lys Asn Met Glu Ala Gly Ala Gly Arg Ala Ser
          260          265          270
Tyr Ile Ser Ser Ala Arg Leu Glu Gln Pro Asp Pro Gly Ala Val Ala
          275          280          285
Ala Ala Ala Ile Leu Arg Ala Ile Leu Glu Val Leu Gln Ser
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<210> 4697

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 4697

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120
taccttgtag tgaaaaatgg agtgctggca tacattggga attttcgcct gcttgtagag
180
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240
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300
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360
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420
tcgattaact ctgaacagtt gaccagggcc cagtgtgtga ctgtgaaaga gaagttactt
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720
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780
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840

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<210> 4698

<211> 182

<212> PRT

<213> Homo sapiens

<400> 4698

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Thr	Asp	Gly	Thr	Val	Phe	Arg	Ile	His	Thr	Lys	Ala	Glu	Gly	Phe	Met
		20					25						30		
Asp	Ala	Asp	Ile	Pro	Leu	Glu	Leu	Val	Phe	His	Leu	Pro	Val	Asn	Tyr
		35					40					45			
Pro	Ser	Cys	Leu	Pro	Gly	Ile	Ser	Ile	Asn	Ser	Glu	Gln	Leu	Thr	Arg
		50				55				60					
Ala	Gln	Cys	Val	Thr	Val	Lys	Glu	Lys	Leu	Leu	Glu	Gln	Ala	Glu	Ser
65					70				75					80	
Leu	Leu	Ser	Glu	Pro	Met	Val	His	Glu	Leu	Val	Leu	Trp	Ile	Gln	Gln
			85					90						95	
Asn	Leu	Arg	His	Ile	Leu	Ser	Gln	Pro	Glu	Thr	Gly	Ser	Gly	Ser	Glu
			100					105					110		
Lys	Cys	Thr	Phe	Ser	Thr	Ser	Thr	Thr	Met	Asp	Asp	Gly	Leu	Trp	Ile
		115					120					125			
Thr	Leu	Leu	His	Leu	Asp	His	Met	Arg	Ala	Lys	Thr	Lys	Tyr	Val	Lys
	130					135					140				
Ile	Val	Glu	Lys	Trp	Ala	Ser	Asp	Leu	Arg	Leu	Thr	Gly	Arg	Leu	Met
145					150				155					160	
Phe	Met	Gly	Lys	Ile	Leu	Ile	Leu	Leu	Gln	Gly	Asp	Arg	Asn	Asn	
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<210> 4699

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 4699

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attacaatta aaataactat attcttctat attttttctg ttaaaatcat ctcataaatt
 300
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 360
 aatgattaat ttagaagcac acgacgtcat gatgaaaaac acaagcattt tagtagcaag
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 gacttgatca gttaagaatt agtttttctg taaaacattc taaagccaag taaaatatcc
 480
 attcttataa catacctata atatgagact aaggaatagg ttacatatag gtctacaaca
 540
 cattggtttg tctttaaaaa aacaaaagta gacatttata aataaaaaag agggacaatt
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 660
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 720
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 780
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 1320
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 1440
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 1441

<210> 4700

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4700

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Ser Thr Arg Gly Gln Ser Lys Thr Gly Trp Lys Leu Pro Val Thr Leu

20 25 30

Ile Cys Cys Pro Arg His Pro Leu Met Arg Leu Lys Leu Gly Pro Ser

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      35      40      45
Glu Thr Ala Ala Ala Pro Tyr Arg Ala Cys Trp Leu Cys Arg Gly Glu
      50      55      60
Val Asp Asp Lys Gly Thr Arg His Ala Ser Ala Pro Cys Val Arg Ser
      65      70      75      80
Gly Leu Gly His Ser Pro Cys Thr Ser Lys Thr Pro Val Leu Thr Pro
      85      90      95
Thr Ser Lys Glu Leu Leu Leu Leu Ile Cys Lys Ala Ile Leu Leu Leu
      100      105      110
Ser Asn Leu Val
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<210> 4701

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4701

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120
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180
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240
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720
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<210> 4702

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4702

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Arg Gln Gly Phe Thr Leu Thr Arg Met Ile Ser Ile Ser Gly Pro Arg

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Asp Pro Pro Thr Ser Ala Ser Glu Asn Ala Gly Ile Thr Gly Leu Ser
      20           25           30
His Xaa Pro Pro Gly His Phe Phe Leu Glu Thr Arg Ser Tyr Ser Leu
      35           40           45
Ala Lys Asn Gly Val Gln Trp Cys Asn Val Gly Ser Leu Gln Pro Lys
      50           55           60
Pro Pro Gly Leu Lys
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<210> 4703

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4703

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120
cgaagagtct tcgaagggtt gccgcttttc ggtggcgag ttctcgcgag aaggaaaatg
180
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240
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300
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360
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420
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<210> 4704

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4704

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Met Ala Ala Pro Glu Gln Pro Leu Ala Ile Ser Arg Gly Cys Thr Ser
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Ser Ser Ser Leu Ser Pro Pro Arg Ala Asp Arg Thr Leu Leu Val Arg
      20           25           30
His Leu Pro Ala Glu Leu Thr Ala Glu Glu Lys Glu Asp Leu Leu Lys
      35           40           45
Tyr Phe Gly Ala Gln Ser Val Arg Val Leu Ser Asp Lys Gly Arg Leu
      50           55           60
Lys His Thr Ala Phe Ala Thr Phe Pro Asn Glu Lys Ala Ala Ile Lys
      65           70           75           80
Ala Leu Thr Arg Leu His Gln Leu Lys Leu Leu Gly His Thr Leu Val
      85           90           95
Val Glu Phe Ala Lys Glu Gln Asp Arg Val His Ser Pro Cys Pro Thr

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100 105 110

<210> 4705
 <211> 569
 <212> DNA
 <213> Homo sapiens

<400> 4705
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 120
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 180
 attcctcaca attgtggtga gacagagctc agggaatact tcaagaagtt cggagtgggtc
 240
 acggaggttag tcatgatcta tgacgccgag aagcagaggc cccgaggtaa gggcagatct
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 360
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 420
 actaaaacgt gggctcctca tgtgcacccc attcagcctg tctgtgcttc ccgaggtcag
 480
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 540
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 569

<210> 4706
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 4706
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 20 25 30
 Thr Glu Leu Arg Glu Tyr Phe Lys Lys Phe Gly Val Val Thr Glu Val
 35 40 45
 Val Met Ile Tyr Asp Ala Glu Lys Gln Arg Pro Arg Gly Lys Gly Arg
 50 55 60
 Ser Ser Leu Thr Ser Ala Phe Ser Leu Leu Leu Pro Gln Met Ala Asn
 65 70 75 80
 Tyr Leu Thr Arg Gln Ala His Thr Gly Gly Gly Cys Ser Lys Gln Pro
 85 90 95
 Gln Glu Gly Thr Ile Trp Arg Gln Met Thr Lys Thr Trp Ala Pro His
 100 105 110
 Val His Pro Ile Gln Pro Val Cys Ala Ser Arg Gly Gln Thr Ser His
 115 120 125
 Ile Val Phe Trp Leu Val Leu Leu Lys Phe Leu Arg Leu Val Met Ser
 130 135 140
 Leu Gly Leu Ala Ser Val Phe His Cys Pro

145

150

<210> 4707

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4707

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 120
 gtctttccgg agacccttgg aatttaaattc attagcaccg cgcccttccc cgaagagtct
 180
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 240
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 300
 ttgatgccgc gattttgact gagacttctt cccacgattt ctgtttttgc ttctccaagg
 360
 aaaatggcag ctcccagca gccgcttgcg atatcaaggg gatgcacgag ctctctctcg
 420
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 480
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 540
 gataaggggc gactgaaaca tacagctttt gccacattcc ctaatgaaaa agcagctata
 600
 aaggcattga caagactcca tcaactgaaa cttttagggtc atactttagt cgttgaattt
 660
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 720
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 748

<210> 4708

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4708

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Ser	Ser	Ser	Leu	Ser	Pro	Pro	Arg	Gly	Asp	Arg	Thr	Leu	Leu	Val	Arg
			20					25				30			
His	Leu	Pro	Ala	Glu	Leu	Thr	Ala	Glu	Glu	Lys	Glu	Asp	Leu	Leu	Lys
			35				40				45				
Tyr	Phe	Gly	Ala	Gln	Ser	Val	Arg	Val	Leu	Ser	Asp	Lys	Gly	Arg	Leu
			50				55				60				
Lys	His	Thr	Ala	Phe	Ala	Thr	Phe	Pro	Asn	Glu	Lys	Ala	Ala	Ile	Lys
					70					75				80	
Ala	Leu	Thr	Arg	Leu	His	Gln	Leu	Lys	Leu	Leu	Gly	His	Thr	Leu	Val
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Val	Glu	Phe	Ala	Lys	Glu	Gln	Asp	Arg	Val	His	Ser	Pro	Cys	Pro	Thr

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Ser	Gly	Ser	Glu	Lys	Lys
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					Asp
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<210> 4709
 <211> 1351
 <212> DNA
 <213> Homo sapiens

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<211> 304
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<213> Homo sapiens

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Gly Thr Val Leu Ala Ser Arg Pro His Thr Leu Asp Gly Arg Asn Ile
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Pro Lys Glu Gly Trp Gln Lys Gly Pro Arg Ser Asp Asn Ser Lys Ser
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115 120 125
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180 185 190
Ser Lys Ser Gln Ala Pro Gly Gln Pro Gly Ala Ser Gln Trp Gly Ser
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Thr Trp Gln Gln Gly Tyr Gly Pro Gln Gly Met Trp Val Pro Ala Gly
225 230 235 240
Gln Ala Ile Gly Gly Tyr Gly Pro Pro Pro Ala Gly Arg Gly Ala Pro
245 250 255
Pro Pro Pro Pro Pro Phe Thr Ser Tyr Ile Val Ser Thr Pro Pro Gly
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<212> DNA
<213> Homo sapiens

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<210> 4712

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4712

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Val	Gly	Ser	Gly	Ser	Arg	Glu	Leu	Ser	Leu	Arg	Pro	Ser	Arg	Ser	Gly
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Pro	Met	Ala	Ala	Pro	Glu	Gly	Lys	Arg	Ser	Leu	Ala	Asn	Gly	Pro	Asn
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Glu	Glu	Glu	Gln	Leu	Ser	Gly	Ala	Gly	Tyr	Arg	Val	Ser	Ala	Ala	Leu
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<210> 4713

<211> 1324

<212> DNA

<213> Homo sapiens

<400> 4713

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<211> 145

<212> PRT

<213> Homo sapiens

<400> 4714

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 35 40 45
 Ala Ala Ser Arg Ala Ala Ala Asp Ala Arg Gly Arg Ala Gly His Arg
 50 55 60
 Ser Ala Ala Ala Ser Asn Leu Ser Gly Leu Ser Leu Gln Glu Ala Gln
 65 70 75 80
 Gln Ile Leu Asn Val Ser Lys Leu Ser Pro Glu Glu Val Gln Lys Asn
 85 90 95
 Tyr Glu His Leu Phe Lys Val Asn Asp Lys Ser Val Gly Gly Ser Phe
 100 105 110
 Tyr Leu Gln Ser Lys Val Val Arg Ala Lys Glu Arg Leu Asp Glu Glu
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 Leu Lys Ile Gln Ala Gln Glu Asp Arg Glu Lys Gly Gln Met Pro His
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<210> 4715

<211> 2051

<212> DNA

<213> Homo sapiens

<400> 4715

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<211> 239

<212> PRT

<213> Homo sapiens

<400> 4716

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			20					25					30		
Pro	Ala	Lys	Glu	Phe	Thr	Asn	His	Trp	Asn	Glu	Leu	Phe	Asn	Lys	

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Leu Leu Tyr Gln Lys Phe Val Lys Met Ala Thr Leu Thr Ser Gly Gly
      85          90          95
Glu Lys Pro Asn Lys Asp Leu Glu Ser Cys Ser Asp Asp Asp Asn Gln
      100          105          110
Gly Ser Lys Ser Pro Lys Ile Leu Thr Asp Glu Met Leu Leu Gln Ala
      115          120          125
Cys Glu Gly Arg Thr Ala His Lys Ala Ala Arg Leu Gly Ile Thr Met
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Lys Ala Lys Leu Ala Arg Leu Glu Ala Gln Glu Gln Ala Phe Leu Ala
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Arg Leu Lys Gly Gln Asp Pro Gly Ala Pro Gln Leu Gln Ser Glu Ser
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Lys Pro Pro Lys Lys Lys Lys Lys Lys Arg Arg Gln Lys Glu Glu Glu
      180          185          190
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<212> DNA

<213> Homo sapiens

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 2640
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<210> 4718

<211> 259

<212> PRT

<213> Homo sapiens

<400> 4718

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		20						25					30		
Asn	Leu	Asp	Ala	Phe	Asn	Glu	Arg	Asp	Pro	Tyr	Lys	Ala	Asp	Asp	Ser
		35					40					45			
Arg	Glu	Glu	Glu	Glu	Glu	Asn	Asp	Asp	Asp	Asn	Ser	Leu	Glu	Gly	Glu
	50					55					60				
Thr	Phe	Pro	Leu	Glu	Arg	Asp	Glu	Val	Met	Pro	Pro	Pro	Leu	Gln	His
65					70					75				80	
Pro	Gln	Thr	Asp	Arg	Leu	Thr	Cys	Pro	Lys	Gly	Leu	Pro	Trp	Ala	Pro
			85						90					95	
Lys	Val	Arg	Glu	Lys	Asp	Ile	Glu	Met	Phe	Leu	Glu	Ser	Ser	Arg	Ser
		100						105					110		
Lys	Phe	Ile	Gly	Tyr	Thr	Leu	Gly	Ser	Asp	Thr	Asn	Thr	Val	Val	Gly
	115					120					125				
Leu	Pro	Arg	Pro	Ile	His	Glu	Ser	Ile	Lys	Thr	Leu	Lys	Gln	His	Lys
	130					135					140				
Tyr	Thr	Ser	Ile	Ala	Glu	Val	Gln	Ala	Gln	Met	Lys	Glu	Glu	Tyr	Leu
145					150					155				160	
Arg	Ser	Pro	Leu	Ser	Gly	Gly	Glu	Glu	Glu	Val	Glu	Gln	Val	Pro	Ala
			165						170					175	
Glu	Thr	Leu	Tyr	Gln	Gly	Leu	Leu	Pro	Ser	Leu	Pro	Gln	Tyr	Met	Ile
		180						185					190		
Ala	Leu	Leu	Lys	Ile	Leu	Leu	Ala	Ala	Ala	Pro	Thr	Ser	Lys	Ala	Lys
	195						200					205			
Thr	Asp	Ser	Ile	Asn	Ile	Leu	Ala	Asp	Val	Leu	Pro	Glu	Glu	Met	Pro
	210					215					220				
Thr	Thr	Val	Leu	Gln	Ser	Met	Lys	Leu	Gly	Val	Asp	Val	Asn	Arg	His
225					230					235				240	
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245 250 255

Lys His Phe

<210> 4719
 <211> 589
 <212> DNA
 <213> Homo sapiens

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 180
 aagtttaact gtgaagagaa ccagcacagt gatagctgct acaaactggg ggcctactat
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 420
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<210> 4720
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 4720
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 20 25 30
 Glu Lys Asp Pro Asp Gly Cys Tyr Arg Leu Val Asp Tyr Leu Glu Gly
 35 40 45
 Ile Arg Lys Asn Phe Asp Glu Ala Ala Lys Val Leu Lys Phe Asn Cys
 50 55 60
 Glu Glu Asn Gln His Ser Asp Ser Cys Tyr Lys Leu Gly Ala Tyr Tyr
 65 70 75 80
 Val Thr Gly Lys Gly Gly Leu Thr Gln Asp Leu Lys Ala Ala Ala Arg
 85 90 95
 Cys Phe Leu Met Ala Cys Glu Lys Pro Gly Lys Lys Ser Ile Ala Ala
 100 105 110
 Cys His Asn Val Gly Leu Leu Ala His Asp Gly Gln Val Asn Glu Asp
 115 120 125
 Gly Gln Pro Asp Leu Gly Lys Ala Arg Asp Tyr Tyr Thr Arg Ala Cys

130		135		140
Asp Gly Gly Tyr Thr Ser Ser Cys Phe Asn Leu Ser Ala Met Phe Leu				
145		150		155
Gln Gly Ala Pro Gly Phe Pro Lys Asp Met Asp Leu Ala Cys Lys Tyr				160
	165		170	175
Ser Met Lys Ala Cys Asp Leu Gly His Ile Trp Ala Cys Ala Asn Ala				
180		185		190
Ser Arg Met Tyr				
195				

<210> 4721
 <211> 1385
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 300
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 420
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 480
 gatgaagaca gagcagtaca ggtgaccaag aaaaaaaga agaaacaaca caagattcca
 540
 acaaatgacg aattactgta tgatcctgaa aaagataaca gagatcaggc ctgggttgat
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 720
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 780
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 840
 aagaagatga ggtctaaccg ggaagatgct gctgagaagg cagagacaga tgtggaagaa
 900
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 1080
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 1140

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 1200
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 1260
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 1380
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 1385

<210> 4722

<211> 285

<212> PRT

<213> Homo sapiens

<400> 4722

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Ser	Asp	Glu	Glu	Pro	Ala	Leu	Ser	Ser	Ser	Glu	Asp	Glu	Val	Asp	Val
		20						25					30		
Leu	Leu	His	Gly	Thr	Pro	Asp	Gln	Lys	Arg	Lys	Leu	Ile	Arg	Glu	Cys
		35					40					45			
Leu	Thr	Gly	Glu	Ser	Glu	Ser	Ser	Ser	Glu	Asp	Glu	Phe	Glu	Lys	Glu
	50					55					60				
Met	Glu	Ala	Glu	Leu	Asn	Ser	Thr	Met	Lys	Thr	Met	Glu	Asp	Lys	Leu
65					70					75					80
Ser	Ser	Leu	Gly	Thr	Gly	Ser	Ser	Ser	Gly	Asn	Gly	Lys	Val	Ala	Thr
			85						90				95		
Ala	Pro	Thr	Arg	Tyr	Tyr	Asp	Asp	Ile	Tyr	Phe	Asp	Ser	Asp	Ser	Glu
			100					105					110		
Asp	Glu	Asp	Arg	Ala	Val	Gln	Val	Thr	Lys	Lys	Lys	Lys	Lys	Lys	Gln
	115						120					125			
His	Lys	Ile	Pro	Thr	Asn	Asp	Glu	Leu	Leu	Tyr	Asp	Pro	Glu	Lys	Asp
	130					135					140				
Asn	Arg	Asp	Gln	Ala	Trp	Val	Asp	Ala	Gln	Arg	Arg	Gly	Tyr	His	Gly
145					150					155					160
Leu	Gly	Pro	Gln	Arg	Ser	Arg	Gln	Gln	Gln	Pro	Val	Pro	Asn	Ser	Asp
			165					170					175		
Ala	Val	Leu	Asn	Cys	Pro	Ala	Cys	Met	Thr	Thr	Leu	Cys	Leu	Asp	Cys
		180						185					190		
Gln	Arg	His	Glu	Ser	Tyr	Lys	Thr	Gln	Tyr	Arg	Ala	Met	Phe	Val	Met
	195						200					205			
Asn	Cys	Ser	Ile	Asn	Lys	Glu	Glu	Val	Leu	Arg	Tyr	Lys	Ala	Ser	Glu
	210				215						220				
Asn	Arg	Lys	Lys	Arg	Arg	Val	His	Lys	Lys	Met	Arg	Ser	Asn	Arg	Glu
225					230					235					240
Asp	Ala	Ala	Glu	Lys	Ala	Glu	Thr	Asp	Val	Glu	Glu	Ile	Tyr	His	Pro
			245						250				255		
Val	Met	Cys	Thr	Glu	Cys	Ser	Thr	Glu	Val	Ala	Val	Tyr	Asp	Lys	Asp
		260						265					270		
Glu	Val	Phe	His	Phe	Phe	Asn	Val	Leu	Ala	Ser	His	Ser			
	275						280					285			

<210> 4723
<211> 1213
<212> DNA
<213> Homo sapiens

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180
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240
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360
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480
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720
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780
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960
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1080
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1213

<210> 4724
<211> 54
<212> PRT
<213> Homo sapiens

<400> 4724

Met Gly Pro Arg Arg His Arg Ala Ser Ser Ile Leu Pro Gln Thr Leu
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 Val Gly Val Pro Val Gly Trp Gly Gly Glu Trp Gly Glu Pro Thr Pro
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 Gly Pro Pro Ser Pro Phe Pro Arg Gln Ser Pro Phe Gly Leu Asn Pro
 35 40 45
 Phe Leu Pro Ala Gly Asp
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<210> 4725

<211> 366

<212> DNA

<213> Homo sapiens

<400> 4725

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 120
 tgcgcatgtg cacgtgtgta tatgcatatg tgcacaggtg cctgtgcctg tgtgaacaca
 180
 tgttctcacg tgtgtacctg cntctcttgc ccatgcntgt acgtgcacac gtgcctctgt
 240
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 300
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 366

<210> 4726

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4726

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 Gly Arg Gly Ala Met Leu Ala Ile Asp Thr Ala Ser Asp Ile Leu Ala
 20 25 30
 His Val His Val Tyr Ser Arg Leu Cys Ala Cys Ala Arg Val Tyr Met
 35 40 45
 His Met Cys Thr Gly Ala Cys Ala Cys Val Asn Thr Cys Ser His Val
 50 55 60
 Cys Thr Cys Xaa Ser Cys Pro Cys Xaa Tyr Val His Thr Cys Leu Cys
 65 70 75 80
 Met His Ala Cys Ile Ala Val Cys Pro Tyr Pro His Val Arg Ile His
 85 90 95
 Met Arg Leu Cys Leu His Leu Cys Met His Ala Ser Val Leu Leu Arg
 100 105 110
 Ala Trp Val Cys Ile Cys Ala Cys Thr Arg
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<210> 4727
<211> 2031
<212> DNA
<213> Homo sapiens

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<210> 4728

<211> 328

<212> PRT

<213> Homo sapiens

<400> 4728

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 Gln Trp Asp Ser Asp Glu Pro Ile Pro Ala Lys Glu Leu Glu Arg Gly
 35 40 45
 Val Ala Gly Ala His Gly Leu Leu Cys Leu Leu Ser Asp His Val Asp
 50 55 60
 Lys Arg Ile Leu Asp Ala Ala Gly Ala Asn Leu Lys Val Ile Ser Thr
 65 70 75 80
 Met Ser Val Gly Ile Asp His Leu Ala Leu Asp Glu Ile Lys Lys Arg
 85 90 95
 Gly Ile Arg Val Gly Tyr Thr Pro Asp Val Leu Thr Asp Thr Thr Ala
 100 105 110
 Glu Leu Ala Val Ser Leu Leu Leu Thr Thr Cys Arg Arg Leu Pro Glu
 115 120 125
 Ala Ile Glu Glu Val Lys Asn Gly Gly Trp Thr Ser Trp Lys Pro Leu
 130 135 140
 Trp Leu Cys Gly Tyr Gly Leu Thr Gln Ser Thr Val Gly Ile Ile Gly
 145 150 155 160
 Leu Gly Arg Ile Gly Gln Ala Ile Ala Arg Arg Leu Lys Pro Phe Gly
 165 170 175
 Val Gln Arg Phe Leu Tyr Thr Gly Arg Gln Pro Arg Pro Glu Glu Ala
 180 185 190
 Ala Glu Phe Gln Ala Glu Phe Val Ser Thr Pro Glu Leu Ala Ala Gln
 195 200 205
 Ser Asp Phe Ile Val Val Ala Cys Ser Leu Thr Pro Ala Thr Glu Gly

210	215	220
Leu Cys Asn Lys Asp Phe Phe Gln Lys Met Lys Glu Thr Ala Val Phe		
225	230	235
Ile Asn Ile Ser Arg Gly Asp Val Val Asn Gln Asp Asp Leu Tyr Gln		240
	245	250
Ala Leu Ala Ser Gly Lys Ile Ala Ala Gly Leu Asp Val Thr Ser		255
	260	265
Pro Glu Pro Leu Pro Thr Asn His Pro Leu Leu Thr Leu Lys Asn Cys		270
	275	280
Val Ile Leu Pro His Ile Gly Ser Ala Thr His Arg Thr Arg Asn Thr		285
	290	295
Met Ser Leu Leu Ala Ala Asn Asn Leu Leu Ala Gly Leu Arg Gly Glu		300
305	310	315
Pro Met Pro Ser Glu Leu Lys Leu		320
	325	

<210> 4729

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4729

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<210> 4730

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4730

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      20           25           30
Lys Gln Ala Ala Leu Lys Ser His Tyr Ala Asp Val Asp Pro Glu Asn
      35           40           45
Gln Asn Phe Leu Leu Glu Ser Asn Leu Gly Lys Lys Lys Tyr Glu Thr
      50           55           60
Glu Phe His Pro Gly Thr Thr Ser Phe Gly Met Ser Val Phe Asn Leu
65           70           75           80
Ser Asn Ala Ile Val Gly Ser Gly Ile Leu Gly Leu Ser Tyr Ala Met
      85           90           95
Ala Asn Thr Gly Ile Ala Leu Phe Ile Ile Leu Leu Thr Phe Val Ser
      100          105          110
Ile Phe Ser Leu Tyr Ser Val His Leu Leu Leu Lys Thr Ala Asn Glu
      115          120          125
Gly Gly Ser Leu Leu Tyr Glu Gln Leu Gly Tyr Lys Ala Ser Gly Leu
      130          135          140
Val Gly Lys Leu
145

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<210> 4731

<211> 2417

<212> DNA

<213> Homo sapiens

<400> 4731

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240
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<211> 129
<212> PRT
<213> Homo sapiens

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35 40 45
Ser Val Thr Tyr Leu Gly Ile Pro Gln Gly Leu Leu Glu Cys Asp Cys
50 55 60
Pro Leu Pro Ser Cys Leu Gly Tyr Lys Ser Trp Pro Tyr Val Pro Ala
65 70 75 80
Val Arg Gly Ser Gly Asn Pro Thr Gln Pro Pro Val Leu Gly Trp Ser
85 90 95
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Lys

<210> 4733
<211> 543
<212> DNA
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543

<210> 4734
 <211> 181
 <212> PRT
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 35 40 45
 Gln Cys Val Ser Trp Asn Lys Glu Gln Gly Phe Ile Ala Cys Gly Gly
 50 55 60
 Glu Asp Gly Leu Leu Lys Val Leu Lys Leu Glu Thr Gln Thr Asp Asp
 65 70 75 80
 Ala Lys Leu Arg Gly Leu Ala Ala Pro Ser Asn Leu Ser Met Asn Gln
 85 90 95
 Thr Leu Glu Gly His Ser Gly Ser Val Gln Val Val Thr Trp Asn Glu
 100 105 110
 Gln Tyr Gln Lys Leu Thr Thr Ser Asp Glu Asn Gly Leu Ile Ile Val
 115 120 125
 Trp Met Leu Tyr Lys Gly Ser Trp Ile Glu Glu Met Ile Asn Asn Arg
 130 135 140
 Asn Lys Ser Val Val Arg Ser Met Ser Trp Asn Ala Asp Gly Gln Lys
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 <213> Homo sapiens

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<210> 4736
 <211> 93
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<400> 4736

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 20 25 30
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 35 40 45
 Val Ala Ser Ala Gln Tyr Val Ser Gln Ala Lys Ala Ser Ala Leu Gln
 50 55 60
 Gln Gln Gln Tyr Tyr Gln Trp Tyr Gln Gln Asp Asn Tyr Ala Tyr Pro
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<210> 4737

<211> 2602

<212> DNA

<213> Homo sapiens

<400> 4737

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<210> 4738
 <211> 756
 <212> PRT
 <213> Homo sapiens

<400> 4738

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Thr Met Trp Glu Arg Asp Val Ser Asp Arg Gln Glu Pro Gly Arg
      35           40           45
Arg Gly Arg Ser Trp Gly Leu Glu Gly Ser Gln Ala Leu Ser Gln Gln
 50           55           60
Ala Glu Val Ile Val Arg Gln Leu Gln Glu Leu Arg Arg Leu Glu Glu
65           70           75           80
Glu Val Arg Leu Leu Arg Glu Thr Ser Leu Gln Gln Lys Met Arg Leu
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Glu Ala Gln Ala Met Glu Leu Glu Ala Leu Ala Arg Ala Glu Lys Ala
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Gly Arg Ala Glu Ala Glu Gly Leu Arg Ala Ala Leu Ala Gly Ala Glu
      115          120          125
Val Val Arg Lys Asn Leu Glu Glu Gly Arg Gln Arg Glu Leu Glu Glu
      130          135          140
Val Gln Arg Leu His Gln Glu Gln Leu Ser Ser Leu Thr Gln Ala His
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Glu Glu Ala Leu Ser Ser Leu Thr Ser Lys Ala Glu Gly Leu Glu Lys
      165          170          175
Ser Leu Ser Ser Leu Glu Thr Arg Arg Ala Gly Glu Ala Lys Glu Leu
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Ala Glu Ala Gln Arg Glu Ala Glu Leu Leu Arg Lys Gln Leu Ser Lys
      195          200          205
Thr Gln Glu Asp Leu Glu Ala Gln Val Thr Leu Val Glu Asn Leu Arg
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Lys Tyr Val Gly Glu Gln Val Pro Ser Glu Val His Ser Gln Thr Trp
      225          230          235          240
Glu Leu Glu Arg Gln Lys Leu Leu Glu Thr Met Gln Leu Leu Gln Glu
      245          250          255
Asp Arg Asp Ser Leu His Ala Thr Ala Glu Leu Leu Gln Val Arg Val
      260          265          270
Gln Ser Leu Thr His Ile Leu Ala Leu Gln Glu Glu Glu Leu Thr Arg
      275          280          285
Lys Val Gln Pro Ser Asp Ser Leu Glu Pro Glu Phe Thr Arg Lys Cys
      290          295          300
Gln Ser Leu Leu Asn Arg Trp Arg Glu Lys Val Phe Ala Leu Met Val
      305          310          315          320
Gln Leu Lys Ala Gln Glu Leu Glu His Ser Asp Ser Val Lys Gln Leu
      325          330          335
Lys Gly Gln Val Ala Ser Leu Gln Glu Lys Val Thr Ser Gln Ser Gln
      340          345          350
Glu Gln Ala Ile Leu Gln Arg Ser Leu Gln Asp Lys Ala Ala Glu Val
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Leu Glu Thr Thr Met Ala Lys Val Glu Gly Ala Ala Ala Gln Leu Pro
      420      425      430
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      435      440      445
Arg Gly Leu Ile Ala Arg Lys Leu Ala Leu Ala Gln Leu Arg Gln Glu
      450      455      460
Ser Cys Pro Leu Pro Pro Pro Val Thr Asp Val Ser Leu Glu Leu Gln
465      470      475      480
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      485      490      495
Ala Arg Leu Ile Gln Gln Glu Val Gly Arg Ala Arg Glu Gln Gly Glu
      500      505      510
Ala Glu Arg Gln Gln Leu Ser Lys Val Ala Gln Gln Leu Glu Gln Glu
      515      520      525
Leu Gln Gln Thr Gln Glu Ser Leu Ala Ser Leu Gly Leu Gln Leu Glu
      530      535      540
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545      550      555      560
Arg Gln Glu Leu Thr Gln Gln Gln Glu Leu Tyr Gly Gln Ala Leu Gln
      565      570      575
Glu Lys Val Ala Glu Val Glu Thr Arg Leu Arg Glu Gln Leu Ser Asp
      580      585      590
Thr Glu Arg Arg Leu Asn Glu Ala Arg Arg Glu His Ala Lys Ala Val
      595      600      605
Val Ser Leu Arg Gln Ile Gln Arg Arg Ala Ala Gln Glu Lys Glu Arg
      610      615      620
Ser Gln Glu Leu Arg Arg Leu Gln Glu Glu Ala Arg Lys Glu Glu Gly
625      630      635      640
Gln Arg Leu Ala Arg Arg Leu Gln Glu Leu Glu Arg Asp Lys Asn Leu
      645      650      655
Met Leu Ala Thr Leu Gln Gln Glu Gly Leu Leu Ser Arg Tyr Lys Gln
      660      665      670
Gln Arg Leu Leu Thr Val Leu Pro Ser Leu Leu Asp Lys Lys Lys Ser
      675      680      685
Val Val Ser Ser Pro Arg Pro Pro Glu Cys Ser Ala Ser Ala Pro Val
      690      695      700
Ala Ala Ala Val Pro Thr Arg Glu Ser Ile Lys Gly Ser Leu Ser Val
705      710      715      720
Leu Leu Asp Asp Leu Gln Asp Leu Ser Glu Ala Ile Ser Lys Glu Glu
      725      730      735
Ala Val Cys Gln Gly Asp Asn Leu Asp Arg Cys Ser Ser Ser Asn Pro
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Gln Met Ser Ser
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<210> 4739

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4739

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<210> 4740

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4740

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 Trp Leu Ser Asp Lys Asp Lys Glu Lys Ile Gln Met Ser Thr Arg Ala
 35 40 45
 Val His Ile Leu Trp Val Ser Trp Glu Gln Gly Trp Ala Val Pro Glu
 50 55 60
 Ala Pro Ser Gln Pro Ala Pro Gln Ala Ala Asn Gly Ser Leu Leu Leu
 65 70 75 80
 Gly Gln Gly Ile Cys Gly Gln Glu Ser Thr Leu Val Arg Arg Arg Leu
 85 90 95
 Ala Ser Asn Thr Gln Pro Cys Leu Arg Ala Pro Ala Val Glu Gly Ser
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 Gly Arg Val Gln Gly Ala Asp
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<210> 4741

<211> 411

<212> DNA

<213> Homo sapiens

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<210> 4742
 <211> 109
 <212> PRT
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 35 40 45
 Ser Phe Ile Pro Pro Pro Phe Pro Pro Phe Gly Phe Phe Lys Lys Phe
 50 55 60
 Pro Ser Phe Phe Arg Lys Gly Lys Gly Gly Glu Arg Gly Gly Gln Arg
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<210> 4744
 <211> 150
 <212> PRT
 <213> Homo sapiens

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 Arg Val Ile Glu Ser Arg Tyr Leu Gln Tyr Glu Lys Lys Thr Thr Gln
 35 40 45
 Lys Ala Pro Ala Gly Asp Gly Ser Gln Thr Arg Gly Lys Met Ser Glu
 50 55 60
 Gly Gly Arg Lys Ser Ser Leu Leu Gln Lys Ser Lys Ala Asp Ser Ser
 65 70 75 80
 Gly Val Gly Lys Gly Asp Leu Gln Ser Thr Leu Leu Glu Gly His Gly
 85 90 95
 Thr Ala Pro Pro Asp Leu Asp Leu Ser Ala Ile Asn Asp Lys Ser Ile
 100 105 110
 Val Lys Lys Thr Pro Gln Leu Ala Lys Thr Ile Ser Lys Lys Pro Glu
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 <211> 666
 <212> DNA
 <213> Homo sapiens

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 Gln Asp Val Met Glu Gly Leu Ser Lys His Lys Gln Gln Arg Gly Thr
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 Thr Glu Ile Gly Met Ile Gly Ser Lys Pro Phe Ser Thr Val Lys Tyr
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 Lys Asn Glu Gly Pro Asp Tyr Arg Leu Tyr Lys Ser Glu Pro Glu Leu
 85 90 95
 Thr Thr Val Ala Glu Val Asp Glu Ser Asn Gly Glu Glu Lys Ser Glu
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 Pro Val Ser Glu Ile Glu Thr Ser Val Val Lys Gly Ser His Phe Pro
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 Val Gly Val Val Pro Pro Arg Ala Lys Ser Pro Thr Pro Glu Ser Ser
 130 135 140
 Thr Ile Ala Ser Tyr Val Thr Leu Arg Lys Thr Lys Lys Met Met Asp
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<211> 273

<212> PRT

<213> Homo sapiens

<400> 4748

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 35 40 45
 Cys Glu Gln Asn Leu Leu Ser Arg Pro Asp Gly Ser Ala Ser Phe Leu
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 Gln Gly Asp Thr Ser Val Leu Ala Gly Val Tyr Gly Pro Ala Glu Val
 65 70 75 80
 Lys Val Ser Lys Glu Ile Phe Asn Lys Ala Thr Leu Glu Val Ile Leu

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Leu Gly Thr Leu His Pro Arg Thr Ser Ile Thr Val Val Leu Gln Val
      145              150              155              160
Val Ser Asp Ala Gly Ser Leu Leu Ala Cys Cys Leu Asn Ala Ala Cys
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Met Ala Leu Val Asp Ala Gly Val Pro Met Arg Ala Leu Phe Cys Gly
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Val Ala Cys Ala Leu Asp Ser Asp Gly Thr Leu Val Leu Asp Pro Thr
      195              200              205
Ser Lys Gln Glu Lys Glu Ala Arg Ala Val Leu Thr Phe Ala Leu Asp
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Ser Val Glu Arg Lys Leu Leu Met Ser Ser Thr Lys Gly Leu Tyr Ser
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Asp Thr Glu Leu Gln Gln Cys Leu Ala Ala Ala Gln Ala Ala Ser Gln
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 <212> DNA
 <213> Homo sapiens

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<211> 276
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 65 70 75 80
 Gly Lys Thr Leu Leu Phe Val Arg Leu Leu Thr Gly Leu Tyr Arg Asp
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 195 200 205
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 Thr Ala Pro Ala Gln Leu Gly Lys Lys Gly Lys Glu Phe Glu Phe Ser
 225 230 235 240
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<210> 4751
 <211> 2777
 <212> DNA
 <213> Homo sapiens

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<211> 335

<212> PRT

<213> Homo sapiens

<400> 4752

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Ile Thr Pro Pro Ala Ala Pro Lys Pro Lys Arg Glu Glu Asn Pro Gln		
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Lys Leu Ala Phe Met Val Ser Leu Gly Leu Val Thr His Asp His Leu		
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<211> 5298

<212> DNA

<213> Homo sapiens

<400> 4753

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<210> 4754

<211> 748
 <212> PRT
 <213> Homo sapiens

<400> 4754

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Pro Ala Asp Lys Asn Val Pro Lys Ile Lys His Arg Lys Lys Ile Lys
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Leu Gln Glu Lys Leu Gln Glu Asn Gln Lys His Tyr Leu Ser Leu Lys
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<210> 4755

<211> 2093

<212> DNA

<213> Homo sapiens

<400> 4755

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 85 90 95
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 <211> 272
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<210> 4758

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4758

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			20				25					30			
Leu	Ala	Ala	Gly	Asp	Val	Asp	Gly	Asp	Val	Phe	Val	Phe	Ser	Tyr	Ser
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Cys	Gln	Glu	Gly	Glu	Thr	Lys	Glu	Leu	Val	Ile	Arg	Ser	His	Leu	Lys
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Ala	Cys	Arg	Ala	Val	Ala	Phe	Ser	Glu	Asp	Gly	Gln	Lys	Leu	Ile	Thr
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<211> 1087

<212> DNA

<213> Homo sapiens

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<211> 78

<212> PRT

<213> Homo sapiens

<400> 4760

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			20					25					30		
Lys	Gly	Gln	Thr	Lys	Thr	Leu	Phe	Glu	Phe	Ser	Ser	Ser	Arg	Ala	Gly
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Phe	Leu	Pro	Leu	Trp	Asp	Val	Ala	Ala	Thr	Asp	Phe	Gly	Gln	Thr	Asn
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<210> 4761

<211> 3973

<212> DNA

<213> Homo sapiens

<400> 4761

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<210> 4762

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4762

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			20					25					30		
Lys	Gly	Trp	Pro	Pro	Lys	Tyr	Ser	Thr	Trp	Glu	Pro	Glu	Glu	His	Ile
		35					40					45			
Leu	Asp	Pro	Arg	Leu	Val	Met	Ala	Tyr	Glu	Glu	Lys	Glu	Glu	Arg	Asp
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Arg	Ala	Ser	Gly	Tyr	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Lys	Arg	Leu	Leu
65					70				75					80	
Leu	Gln	Arg	Leu	Tyr	Ser	Met	Asp	Leu	Arg	Ser	Ser	His	Lys	Ala	Lys
			85					90					95		
Gly	Lys	Glu	Lys	Leu	Cys	Phe	Ser	Leu	Thr	Cys	Pro	Leu	Gly	Ser	Gly
			100					105					110		
Ser	Pro	Glu	Gly	Val	Val	Lys	Ala	Gly	Ala	Pro	Glu	Leu	Val	Asp	Lys
		115					120					125			
Gly	Pro	Leu	Val	Pro	Thr	Leu	Pro	Phe	Pro	Leu	Arg	Lys	Pro	Arg	Lys
		130				135					140				
Ala	His	Lys	Tyr	Leu	Arg	Leu	Ser	Arg	Lys	Lys	Phe	Pro	Pro	Arg	Gly
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Pro	Asn	Leu	Glu	Ser	His	Ser	His	Arg	Arg	Glu	Leu	Phe	Leu	Gln	Glu
				165				170						175	
Pro	Pro	Ala	Pro	Asp	Val	Leu	Gln	Ala	Ala	Gly	Glu	Trp	Glu	Pro	Ala
		180					185						190		
Ala	Gln	Pro	Pro	Glu	Glu	Glu	Ala	Asp	Ala	Asp	Leu	Ala	Glu	Gly	Pro
		195					200				205				
Pro	Pro	Trp	Thr	Pro	Ala	Leu	Pro	Ser	Ser	Glu	Val	Thr	Val	Thr	Asp
		210				215					220				
Ile	Thr	Ala	Asn	Ser	Ile	Thr	Val	Thr	Phe	Arg	Glu	Ala	Gln	Ala	Ala
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<210> 4763
<211> 2158
<212> DNA
<213> Homo sapiens

<400> 4763
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1320
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1380
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1440

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 1860
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<210> 4764

<211> 719

<212> PRT

<213> Homo sapiens

<400> 4764

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			20					25					30		
Leu	Lys	Lys	Arg	Glu	Ile	Lys	Leu	Ser	Asp	Asp	Phe	Asp	Ser	Pro	Val
		35				40					45				
Lys	Gly	Pro	Leu	Cys	Lys	Ser	Val	Thr	Pro	Thr	Lys	Glu	Phe	Leu	Lys
	50				55					60					
Asp	Glu	Ile	Lys	Gln	Glu	Glu	Thr	Cys	Lys	Arg	Ile	Ser	Thr	Ile	
65				70					75				80		
Thr	Ala	Leu	Gly	His	Glu	Gly	Lys	Gln	Leu	Val	Asn	Gly	Glu	Val	Ser
			85					90					95		
Asp	Glu	Arg	Val	Ala	Pro	Asn	Phe	Lys	Thr	Glu	Pro	Ile	Glu	Thr	Lys
		100				105						110			
Phe	Tyr	Glu	Thr	Lys	Glu	Glu	Ser	Tyr	Ser	Pro	Ser	Lys	Asp	Arg	Asn
	115					120						125			
Ile	Ile	Thr	Glu	Gly	Asn	Gly	Thr	Glu	Ser	Leu	Asn	Ser	Val	Ile	Thr
	130				135						140				
Ser	Met	Lys	Thr	Gly	Glu	Leu	Glu	Lys	Glu	Thr	Ala	Pro	Leu	Arg	Lys
145				150					155				160		
Asp	Ala	Asp	Ser	Ser	Ile	Ser	Val	Leu	Glu	Ile	His	Ser	Gln	Lys	Ala
			165					170					175		
Gln	Ile	Glu	Glu	Pro	Asp	Pro	Pro	Glu	Met	Glu	Thr	Ser	Leu	Asp	Ser

Ser	Glu	Met	Ala	Lys	Asp	Leu	Ser	Ser	Lys	Thr	Ala	Leu	Ser	Ser	Thr
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Glu	Ser	Cys	Thr	Met	Lys	Gly	Glu	Glu	Lys	Ser	Pro	Lys	Thr	Lys	Lys
		210				215					220				
Asp	Lys	Arg	Pro	Pro	Ile	Leu	Glu	Cys	Leu	Glu	Lys	Leu	Glu	Lys	Ser
225					230						235				240
Lys	Lys	Thr	Phe	Leu	Asp	Lys	Asp	Ala	Gln	Arg	Leu	Ser	Pro	Ile	Pro
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Glu	Glu	Val	Pro	Lys	Ser	Thr	Leu	Glu	Ser	Glu	Lys	Pro	Gly	Ser	Pro
			260					265					270		
Glu	Ala	Ala	Glu	Thr	Ser	Pro	Pro	Ser	Asn	Ile	Ile	Asp	His	Cys	Glu
		275					280					285			
Lys	Leu	Ala	Ser	Glu	Lys	Glu	Val	Val	Glu	Cys	Gln	Ser	Thr	Ser	Thr
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Val	Gly	Gly	Gln	Ser	Val	Lys	Lys	Val	Asp	Leu	Glu	Thr	Leu	Lys	Glu
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Thr	Ser	Gly	Ile	Glu	Glu	Pro	Ser	Glu	Thr	Lys	Gly	Ser	Met	Gln	Lys
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Ser	Lys	Phe	Lys	Tyr	Lys	Leu	Val	Pro	Glu	Glu	Glu	Thr	Thr	Ala	Ser
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Glu	Asn	Thr	Glu	Ile	Thr	Ser	Glu	Arg	Gln	Lys	Glu	Gly	Ile	Lys	Leu
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Thr	Ile	Arg	Ile	Ser	Ser	Arg	Lys	Lys	Lys	Pro	Asp	Ser	Pro	Pro	Lys
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Val	Leu	Glu	Pro	Glu	Asn	Lys	Gln	Glu	Lys	Thr	Glu	Lys	Glu	Glu	Glu
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Lys	Thr	Asn	Val	Gly	Arg	Thr	Leu	Arg	Arg	Ser	Pro	Arg	Ile	Ser	Arg
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Ser	Lys	Val	Ser	Lys	Val	Lys	Pro	Xaa	Lys	Ala	Lys	Phe	Asp	Gly	Leu
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Val	Leu	Gly	His	Val	Ala	Asp	Gly	Asn	Ile	Pro	Ala	Met	Met	Lys	Val
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Lys	Gly	Leu	Ala	Val	Lys	Asn	His	Leu	Gln	Leu	Gln	Lys	Arg	Arg	Lys
		515					520						525		
Lys	Arg	Lys	Val	Lys	Lys	Pro	Ser	Xaa	Ala	Asp	Asp	Asp	Glu	Pro	Cys
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610 615 620
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 625 630 635 640
 Glu Asp Gln Glu Glu Lys Lys Lys Asp Ser Lys Lys Ser Lys Ala Asn
 645 650 655
 Leu Leu Glu Arg Arg Ser Thr Arg Thr Arg Lys Cys Ile Ser Tyr Arg
 660 665 670
 Phe Asp Glu Phe Asp Glu Ala Ile Asp Glu Ala Ile Glu Asp Asp Ile
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 Lys Glu Ala Asp Gly Gly Gly Val Gly Arg Gly Lys Asp Ile Ser Thr
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<210> 4765

<211> 1707

<212> DNA

<213> Homo sapiens

<400> 4765

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<210> 4766

<211> 280

<212> PRT

<213> Homo sapiens

<400> 4766

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 35 40 45
 Pro Val Ala Leu Thr Leu Leu Thr Leu Cys Leu Val Leu Leu Ile Gly
 50 55 60
 Leu Ala Ala Leu Gly Leu Leu Phe Phe Gln Tyr Tyr Gln Leu Ser Asn
 65 70 75 80
 Thr Gly Gln Asp Thr Ile Ser Gln Met Glu Glu Arg Leu Gly Asn Thr
 85 90 95
 Ser Gln Glu Leu Gln Ser Leu Gln Val Gln Asn Ile Lys Leu Ala Gly
 100 105 110
 Ser Leu Gln His Val Ala Glu Lys Leu Cys Arg Glu Leu Tyr Asn Lys
 115 120 125
 Ala Gly Ala His Arg Cys Ser Pro Cys Thr Glu Gln Trp Lys Trp His
 130 135 140
 Gly Asp Asn Cys Tyr Gln Phe Tyr Lys Asp Ser Lys Ser Trp Glu Asp
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<212> DNA
<213> Homo sapiens
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1020

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<210> 4768

<211> 460

<212> PRT

<213> Homo sapiens

<400> 4768

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		20					25					30			
Asp	Phe	Ser	Glu	Ala	Asp	Leu	Val	Asp	Val	Ser	Ala	Tyr	Ser	Gly	Leu
	35					40					45				
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	50					55					60				
Glu	Gly	Asp	Gly	Glu	Pro	Pro	Tyr	Glu	Pro	Glu	Ser	Gly	Cys	Val	Glu
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Ile	Pro	Gly	Leu	Ser	Glu	Glu	Glu	Asp	Pro	Ala	Pro	Ser	Arg	Lys	Ile
			85						90					95	
His	Phe	Ser	Thr	Ala	Pro	Ile	Gln	Val	Phe	Ser	Thr	Tyr	Ser	Asn	Glu
			100					105					110		
Asp	Tyr	Asp	Arg	Arg	Asn	Glu	Asp	Val	Asp	Pro	Met	Ala	Ala	Ser	Ala
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Glu	Tyr	Glu	Leu	Glu	Lys	Arg	Val	Glu	Arg	Leu	Glu	Leu	Phe	Pro	Val
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Gly	Ala	Gly	Ala	Asp	Met	Gly	Leu	Glu	Lys	Leu	Gly	Ile	Phe	Val	Lys
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Thr	Val	Thr	Glu	Gly	Gly	Ala	Ala	His	Arg	Asp	Gly	Arg	Ile	Gln	Val
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Asn	Asp	Leu	Leu	Val	Glu	Val	Asp	Gly	Thr	Ser	Leu	Val	Gly	Val	Thr
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Phe	Met	Ile	Gly	Arg	Glu	Arg	Pro	Gly	Glu	Gln	Ser	Glu	Val	Ala	Gln
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Leu	Ile	Gln	Gln	Thr	Leu	Glu	Gln	Glu	Arg	Trp	Gln	Arg	Glu	Met	Met
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Glu	Gln	Arg	Tyr	Ala	Gln	Tyr	Gly	Glu	Asp	Asp	Glu	Glu	Thr	Gly	Glu
			260					265					270		
Tyr	Ala	Thr	Asp	Glu	Asp	Glu	Glu	Leu	Ser	Pro	Thr	Phe	Pro	Gly	Gly

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290	295	300
Ser Pro Val Asp Met Glu Pro Glu Lys Leu Val His Lys Phe Lys Glu		
305	310	315
Leu Gln Ile Lys His Ala Val Thr Glu Ala Glu Ile Gln Gln Leu Lys		
325	330	335
Arg Lys Leu Gln Ser Leu Glu Gln Glu Lys Gly Arg Trp Arg Val Glu		
340	345	350
Lys Ala Gln Leu Glu Gln Ser Val Glu Glu Asn Lys Glu Arg Met Glu		
355	360	365
Lys Leu Glu Gly Tyr Trp Gly Glu Ala Gln Ser Leu Cys Gln Ala Val		
370	375	380
Asp Glu His Leu Arg Glu Thr Gln Ala Gln Tyr Gln Ala Leu Glu Arg		
385	390	395
Lys Tyr Ser Lys Ala Lys Arg Leu Ile Lys Asp Tyr Gln Gln Lys Glu		
405	410	415
Ile Glu Phe Leu Lys Lys Glu Thr Ala Gln Arg Arg Val Leu Glu Glu		
420	425	430
Ser Glu Leu Ala Arg Lys Glu Glu Met Asp Lys Leu Leu Asp Lys Ile		
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<210> 4769

<211> 1533

<212> DNA

<213> Homo sapiens

<400> 4769

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<210> 4770

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4770

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 Phe Leu Lys Ala Gln Val Leu Pro Pro Leu Arg Asp Val Arg Thr Arg
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 His Leu Asp Thr Asp Val Lys Arg Val Ala Ala Glu Phe Leu Phe Val
 85 90 95
 Leu Cys Ser Glu Ser Val Pro Arg Phe Ile Lys Tyr Thr Gly Tyr Gly
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 Asn Ala Ala Gly Leu Leu Ala Ala Arg Gly Leu Met Ala Gly Gly Arg
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 Lys Glu Ala Lys Ala Ser Ile Asn Pro Val Thr Gly Arg Val Glu Glu

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Glu Ala Met Lys Leu Val Thr Met Phe Asp Lys Leu Ser Ser Pro Thr
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Ala Pro Phe Pro Asn Arg Asn Arg Val Ile Gln Pro Met Gly Met Ser
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Pro Arg Gly His Leu Thr Ser Leu Gln Asp Ala Met Cys Glu Thr Met
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<210> 4771

<211> 2653

<212> DNA

<213> Homo sapiens

<400> 4771

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 <212> PRT
 <213> Homo sapiens

<400> 4772
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 35 40 45
 Lys Pro Asp Val Val Gln Asp Lys Glu Thr Glu Arg Asn Leu Gln Arg
 50 55 60
 Ile Ala Thr Arg Gly Val Val Gln Leu Phe Asn Ala Val Gln Lys His
 65 70 75 80
 Gln Lys Asn Val Asp Glu Lys Val Lys Glu Ala Gly Ser Ser Met Arg
 85 90 95
 Lys Arg Ala Lys Leu Ile Ser Thr Val Ser Lys Lys Asp Phe Ile Ser
 100 105 110
 Val Leu Arg Gly Met Asp Gly Ser Thr Asn Glu Thr Ala Ser Ser Arg
 115 120 125
 Lys Lys Pro Lys Ala Lys Gln Thr Glu Val Lys Ser Glu Glu Gly Pro
 130 135 140
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 Asp Trp Asp Lys Glu Ser Asp Gly Pro Asp Ser Arg Pro Glu Ser
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<210> 4773
 <211> 319
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 <213> Homo sapiens

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<210> 4774
 <211> 91
 <212> PRT

<213> Homo sapiens

<400> 4774

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      20           25           30
Pro Asn Pro Ser Ser Leu Phe Pro Pro Ser Pro Gln Ala Arg Ala Ala
      35           40           45
Met Gly Trp Arg Val Leu Ala Trp Thr Gln His Pro Ile Ser Ser Ala
      50           55           60
Leu Ser Leu Asp Pro Ala Ser His Leu Leu Ser Ser Gln Gly Gly Gly
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Ser Trp Glu Pro His Pro Gln Pro Leu His Ala
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<210> 4775

<211> 433

<212> DNA

<213> Homo sapiens

<400> 4775

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<210> 4776

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4776

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Leu Trp Leu His Cys Pro Pro Cys Tyr Phe Phe Glu Arg Ala Asn His
      35           40           45
Thr Ala Thr Ser Leu Pro Leu His Leu Leu Ser Leu Leu Leu Leu Thr
      50           55           60
Ile His Ala Ala His Pro Val Thr Ser Phe Gln Phe Leu Leu Thr Phe

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<210> 4777

<211> 2200

<212> DNA

<213> Homo sapiens

<400> 4777

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<211> 144

<212> PRT

<213> Homo sapiens

<400> 4778

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Leu	Phe	Arg	Asp	Ser	Pro	Ala	Gly	Asp	His	Asp	Tyr	Ala	Leu	Pro	Val
			85					90					95		
Gly	Lys	Gln	Lys	Gln	Asp	Leu	Leu	Glu	Glu	Asp	Asp	Ser	Ala	Gly	Gly
			100				105						110		
Val	Cys	Leu	His	Val	Asp	Lys	Asp	Lys	Val	Ser	Val	Glu	Phe	Cys	Ser

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 <211> 4467
 <212> DNA
 <213> Homo sapiens

<400> 4779
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<211> 1241

<212> PRT

<213> Homo sapiens

<400> 4780

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Gln Gln Gln Gln Gln Gln Gln Gln Pro Gln Gln Pro Gln Val Leu
          50           55           60
Ser Ser Glu Gly Gly Gln Leu Arg His Asn Pro Leu Asp Ile Gln Met
65           70           75           80
Leu Ser Arg Gly Leu His Glu Gln Ile Phe Gly Gln Gly Gly Glu Met
          85           90           95
Pro Gly Glu Ala Ala Val Arg Arg Ser Val Glu His Leu Gln Lys His
          100          105          110
Gly Leu Trp Gly Gln Pro Ala Val Pro Leu Pro Asp Val Glu Leu Arg
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Leu Pro Pro Leu Tyr Gly Asp Asn Leu Asp Gln His Phe Arg Leu Leu
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Trp Thr Arg Tyr Gly Pro Glu Gly Glu Ala Val Pro Val Ala Ile Pro
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Glu Glu Arg Ala Leu Val Phe Asp Val Glu Val Cys Leu Ala Glu Gly
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Thr Cys Pro Thr Leu Ala Val Ala Ile Ser Pro Ser Ala Trp Tyr Ser
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Trp Cys Ser Gln Arg Leu Val Glu Glu Arg Tyr Ser Trp Thr Ser Gln
225          230          235          240
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Ser Pro Thr Gln Arg Asp Trp Gln Glu Gln Leu Val Val Gly His Asn
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          275          280          285
Ser Arg Met Arg Phe Leu Asp Thr Met Ser Met His Met Ala Ile Ser
290          295          300
Gly Leu Ser Ser Phe Gln Arg Ser Leu Trp Ile Ala Ala Lys Gln Gly
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Lys His Lys Val Gln Pro Pro Thr Lys Gln Gly Gln Lys Ser Gln Arg
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Lys Ala Arg Arg Gly Pro Ala Ile Ser Ser Trp Asp Trp Leu Asp Ile
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Ser Ser Val Asn Ser Leu Ala Glu Val His Arg Leu Tyr Val Gly Gly
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Pro Pro Leu Glu Lys Glu Pro Arg Glu Leu Phe Val Lys Gly Thr Met
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Glu Ala Gln Gly Thr Tyr Glu Glu Leu Gln Arg Glu Met Lys Lys Ser
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Leu Met Asp Leu Ala Asn Asp Ala Cys Gln Leu Leu Ser Gly Glu Arg
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Tyr Lys Glu Asp Pro Trp Leu Trp Asp Leu Glu Trp Asp Leu Gln Glu
          485          490          495
Phe Lys Gln Lys Lys Ala Lys Lys Val Lys Lys Glu Pro Ala Thr Ala
          500          505          510
Ser Lys Leu Pro Ile Glu Gly Ala Gly Ala Pro Gly Asp Pro Met Asp
          515          520          525
Gln Glu Asp Leu Gly Pro Cys Ser Glu Glu Glu Glu Phe Gln Gln Asp
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Val Met Ala Arg Ala Cys Leu Gln Lys Leu Lys Gly Thr Thr Glu Leu
545          550          555          560
Leu Pro Lys Arg Pro Gln His Leu Pro Gly His Pro Gly Trp Tyr Arg
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Lys Leu Cys Pro Arg Leu Asp Asp Pro Ala Trp Thr Pro Gly Pro Ser
          580          585          590
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Trp Asp Gly Phe Pro Leu His Tyr Ser Glu Arg His Gly Trp Gly Tyr
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Leu Val Pro Gly Arg Arg Asp Asn Leu Ala Lys Leu Pro Thr Gly Thr
625          630          635          640
Thr Leu Glu Ser Ala Gly Val Val Cys Pro Tyr Arg Ala Ile Glu Ser
          645          650          655
Leu Tyr Arg Lys His Cys Leu Glu Gln Gly Lys Gln Gln Leu Met Pro
          660          665          670
Gln Glu Ala Gly Leu Ala Glu Glu Phe Leu Leu Thr Asp Asn Ser Ala
          675          680          685
Ile Trp Gln Thr Val Glu Glu Leu Asp Tyr Leu Glu Val Glu Ala Glu
          690          695          700
Ala Lys Met Glu Asn Leu Arg Ala Ala Val Pro Gly Gln Pro Leu Ala
705          710          715          720
Leu Thr Ala Arg Gly Gly Pro Lys Asp Thr Gln Pro Ser Tyr His His
          725          730          735
Gly Asn Gly Pro Tyr Asn Asp Val Asp Ile Pro Gly Cys Trp Phe Phe
          740          745          750
Lys Leu Pro His Lys Asp Gly Asn Ser Cys Asn Val Gly Ser Pro Phe
          755          760          765
Ala Lys Asp Phe Leu Pro Lys Met Glu Asp Gly Thr Leu Gln Ala Gly
          770          775          780
Pro Gly Gly Ala Ser Gly Pro Arg Ala Leu Glu Ile Asn Lys Met Ile
785          790          795          800
Ser Phe Trp Arg Asn Ala His Lys Arg Ile Ser Ser Gln Met Val Val
          805          810          815
Trp Leu Pro Arg Ser Ala Leu Pro Arg Ala Val Ile Arg His Pro Asp

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3961

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 <211> 344
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 <213> Homo sapiens

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 <211> 109
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Glu Lys His Gln Gly Lys Ala Ala Thr Thr Ala Lys Thr Leu Ile
 50 55 60
 Pro Lys Ser Gln His Arg Met Leu Ala Pro Thr Gly Ala Val Ser Thr
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 Lys Lys Pro Gln Ala Thr Pro Pro Pro Ala Pro Phe Gln
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<210> 4783
 <211> 1143
 <212> DNA
 <213> Homo sapiens

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<210> 4784

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4784

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		20					25					30			
Ala	Leu	Asn	Leu	Ser	Leu	Cys	Lys	Gln	Ile	Thr	Asp	Ser	Ser	Leu	Gly
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Cys	Ser	Asn	Ile	Thr	Asn	Thr	Gly	Leu	Leu	Leu	Ile	Ala	Trp	Gly	Leu
65			70					75						80	
Gln	Arg	Leu	Lys	Ser	Leu	Asn	Leu	Arg	Ser	Cys	Arg	His	Leu	Ser	Asp
			85					90					95		
Val	Gly	Ile	Gly	His	Leu	Ala	Gly	Met	Thr	Arg	Ser	Ala	Ala	Glu	Gly
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      130              135              140
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145              150              155              160
Leu Ser His Met Gly Ser Leu Arg Ser Leu Asn Leu Arg Ser Cys Asp
      165              170              175
Asn Ile Ser Asp Thr Gly Ile Met His Leu Ala Met Gly Ser Leu Arg
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<210> 4785
 <211> 3289
 <212> DNA
 <213> Homo sapiens

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<211> 322

<212> PRT

<213> Homo sapiens

<400> 4786

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			20					25				30			
Val	Gly	Ala	Asp	Asn	Val	Gly	Ser	Lys	Gln	Met	Gln	Gln	Ile	Arg	Met
		35					40				45				
Ser	Leu	Arg	Gly	Lys	Ala	Val	Val	Leu	Met	Gly	Lys	Asn	Thr	Met	Met
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Arg	Lys	Ala	Ile	Arg	Gly	His	Leu	Glu	Asn	Asn	Pro	Ala	Leu	Glu	Lys
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Leu	Leu	Pro	His	Ile	Arg	Gly	Asn	Val	Gly	Phe	Val	Phe	Thr	Lys	Glu
			85					90					95		
Asp	Leu	Thr	Glu	Ile	Arg	Asp	Met	Leu	Leu	Ala	Asn	Lys	Val	Pro	Ala
			100					105					110		
Ala	Ala	Arg	Ala	Gly	Ala	Ile	Ala	Pro	Cys	Glu	Val	Thr	Val	Pro	Ala
		115					120					125			
Gln	Asn	Thr	Gly	Leu	Gly	Pro	Glu	Lys	Thr	Ser	Phe	Phe	Gln	Ala	Leu
130						135					140				
Gly	Ile	Thr	Thr	Lys	Ile	Ser	Arg	Gly	Thr	Ile	Glu	Ile	Leu	Ser	Asp
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Leu	Leu	Asn	Met	Leu	Asn	Ile	Ser	Pro	Phe	Ser	Phe	Gly	Leu	Val	Ile
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Gln	Gln	Val	Phe	Asp	Asn	Gly	Ser	Ile	Tyr	Asn	Pro	Glu	Val	Leu	Asp

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225	230	235
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	245	250
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	260	265
Ala Asp Pro Ser Ala Phe Val Ala Ala Ala Pro Val Ala Ala Ala Thr		270
	275	280
Thr Ala Ala Pro Ala Ala Ala Ala Ala Ala Pro Ala Lys Val Glu		285
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<210> 4787

<211> 1258

<212> DNA

<213> Homo sapiens

<400> 4787

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<213> Homo sapiens

<400> 4789

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

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Gly Pro Val Ile Ile Pro Gln Met Leu Leu Glu Leu Trp Ala Gln Gly
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<210> 4796

<211> 541

<212> PRT

<213> Homo sapiens

<400> 4796

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 35 40 45
 Gly Ser Ser Glu Leu Arg Ala Gln Ala Cys Thr Ala His Ser Ala Gly
 50 55 60
 Val Pro Gly Leu Ser Ile Pro Thr Ser Ser Trp Leu Pro Leu Met Lys
 65 70 75 80
 Gly Pro Pro Glu Val Ala Gln Ser Asn Ile Gln Thr Gln Pro Val Asn
 85 90 95
 Arg Glu Met Asp Ala Ala Gly Phe Asp Phe Ser Leu Pro Cys Thr Gln
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 Lys Leu Thr Gln Asn Gly Thr Arg Ser Gln Trp Gly Leu Ser Leu Pro
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 Ala Leu Met Thr Glu Gly Ser Val Lys His Gly Leu Gly Asp Val Ser
 130 135 140
 Ile Leu Lys Lys Thr Phe Ser Thr Arg Leu Gln Asn Ser Asp Trp Phe
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 Leu Thr Thr Leu Lys Asp Cys Met Thr Leu His Pro Leu Glu Ala Ser
 165 170 175
 Pro Pro Gln Asp Lys Gln Pro Ser Ile Met Lys Asp Gln His Cys Met
 180 185 190
 Asn Trp Cys Leu Ala Pro Pro Glu Gly Asn Ala Asn Val Ala Phe Ser
 195 200 205
 Pro Tyr Gly Phe Leu Ala Trp Gly His Tyr Ile Ser Ala Met Asp Pro
 210 215 220
 Cys Thr Leu Leu Pro Leu Ala Gly Pro His Ala Gln Ala Pro Gln Gly
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 245 250 255
 Leu Trp Thr Val Tyr Glu Asp Ser Lys Arg Gln Gly Leu Ser Leu Glu
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405 410 415
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 Gln Arg Ala Cys Arg Arg Arg Ser Arg Asp Asn Thr Gln Gln Arg Asn
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 Thr Asp Met Ser Pro Tyr Pro Gln Arg Pro Ala Gln Gly Leu Val Trp
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 465 470 475 480
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 485 490 495
 Ile Ser Ser Leu Val Trp Leu Thr Lys Ala Met Leu Ala Leu Arg Gly
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<210> 4797

<211> 2848

<212> DNA

<213> Homo sapiens

<400> 4797

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 240
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<210> 4798

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4798

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		20					25				30				
Phe	Glu	Ser	Phe	Leu	Asp	Asp	Glu	Glu	Asp	Leu	Asp	Val	Lys	Ala	Gly
	35					40					45				
Gly	Gly	Cys	Val	Met	Thr	Ile	Gly	Glu	Met	Leu	Arg	Ser	Phe	Leu	Thr
	50				55					60					
Lys	Leu	Glu	Trp	Phe	Ser	Thr	Leu	Phe	Pro	Arg	Ile	Pro	Val	Pro	Val
65				70					75				80		
Gln	Lys	Asn	Ile	Asp	Gln	Gln	Ile	Lys	Thr	Arg	Pro	Arg	Lys	Ile	Lys
		85						90					95		
Lys	Asp	Gly	Lys	Glu	Gly	Ala	Glu	Glu	Ile	Asp	Arg	His	Val	Glu	Arg
		100					105						110		
Arg	Arg	Ser	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Ser	Pro	Arg	Arg	Ser	Pro
		115				120					125				
Arg	Arg	Ser	Arg	Ser	Arg	Ser	His	His	Arg	Glu	Gly	His	Gly	Ser	Ser
		130				135					140				
Ser	Phe	Asp	Arg	Glu	Leu	Glu	Arg	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Glu
145				150					155					160	
Arg	Glu	Ala	Lys	Glu	Arg	Glu	Lys	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Ile
		165					170						175		
Asp	Arg	Gly	Leu	Glu	Arg	Arg	Arg	Ser	Arg	Ser	Arg	Glu	Arg	His	Arg
		180					185					190			
Ser	Arg	Ser	Arg	Ser	Arg	Asp	Arg	Lys	Gly	Asp	Arg	Arg	Asp	Arg	Asp
		195				200					205				
Arg	Glu	Arg	Glu	Lys	Glu	Asn	Glu	Arg	Gly	Arg	Arg	Arg	Asp	Arg	Asp
	210				215						220				
Tyr	Asp	Lys	Glu	Arg	Gly	Asn	Glu	Arg	Glu	Lys	Glu	Arg	Glu	Arg	Ser
225				230						235				240	
Arg	Glu	Arg	Ser	Lys	Glu	Gln	Arg	Ser	Arg	Gly	Glu	Val	Glu	Glu	Lys
		245						250					255		
Lys	His	Lys	Glu	Asp	Lys	Asp	Asp	Arg	Arg	His	Arg	Asp	Asp	Lys	Arg
		260						265					270		
Asp	Ser	Lys	Lys	Glu	Lys	Lys	His	Ser	Arg	Ser	Arg	Ser	Arg	Glu	Arg


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      275              280              285
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      290              295              300
Ser Arg Ser Lys Glu Lys Ser Ser Lys His Lys Asn Glu Ser Lys Glu
305              310              315              320
Lys Ser Asn Lys Arg Ser Arg Ser Gly Ser Gln Gly Arg Thr Asp Ser
      325              330              335
Val Glu Lys Ser Lys Lys Arg Glu His Ser Pro Ser Lys Glu Lys Ser
      340              345              350
Arg Lys Arg Ser Arg Ser Lys Glu Arg Ser His Lys Arg Asp His Ser
      355              360              365
Asp Ser Lys Asp Gln Ser Asp Lys His Asp Arg Arg Arg Ser Gln Ser
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Val

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<210> 4799

<211> 358

<212> DNA

<213> Homo sapiens

<400> 4799

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180
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240
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<210> 4800

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4800

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20              25              30
Pro Pro Cys Gly His Arg Gly Ala Leu Asp Gln Pro His His Arg Val
35              40              45
Ala Gln Pro His Leu Gln Val Val Arg Gln Arg Ser Pro Pro Ala Ser
50              55              60
Trp Ser Pro Pro Pro Arg Ala Leu Ser His Val Phe Leu Phe Gly Asp
65              70              75              80
Arg Pro Phe Trp Trp Val His Glu Ser Gly Tyr Tyr Ser Gln Ala Pro

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	85		90		95										
Ala	Gln	Val	His	Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser
	100							105					110		
Pro	Ser	Gly	His	Cys	Met	Ile									
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<210> 4801

<211> 1447

<212> DNA

<213> Homo sapiens

<400> 4801

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120
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180
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240
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480
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600
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660
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720
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1020
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1080
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1140
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1200
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1260

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gcaccacctg gtcttagccc caaagatggg ccttctctct cccagataag ttggtcctcc
 1320
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 aaaaaaa
 1447

<210> 4802

<211> 377

<212> PRT

<213> Homo sapiens

<400> 4802

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		20					25					30			
Ser	Thr	Leu	Gly	Ala	Gly	Ile	Val	Ile	Ala	Glu	Ala	Leu	Gln	Asn	Gln
		35				40					45				
Leu	Ala	Trp	Leu	Glu	Asn	Val	Trp	Leu	Trp	Ile	Thr	Phe	Leu	Gly	Asp
	50				55				60						
Pro	Lys	Ile	Leu	Phe	Leu	Phe	Tyr	Phe	Pro	Ala	Ala	Tyr	Tyr	Ala	Ser
65				70				75						80	
Arg	Arg	Val	Gly	Ile	Ala	Val	Leu	Trp	Ile	Ser	Leu	Ile	Thr	Glu	Trp
		85					90					95			
Leu	Asn	Leu	Ile	Phe	Lys	Trp	Phe	Leu	Phe	Gly	Asp	Arg	Pro	Phe	Trp
		100					105					110			
Trp	Val	His	Glu	Ser	Gly	Tyr	Tyr	Ser	Gln	Ala	Pro	Ala	Gln	Val	His
		115				120					125				
Gln	Phe	Pro	Ser	Ser	Cys	Glu	Thr	Gly	Pro	Gly	Ser	Pro	Ser	Gly	His
	130					135				140					
Cys	Met	Ile	Thr	Gly	Ala	Ala	Leu	Trp	Pro	Ile	Met	Thr	Ala	Leu	Ser
145				150				155						160	
Ser	Gln	Val	Ala	Thr	Arg	Ala	Arg	Ser	Arg	Trp	Val	Arg	Val	Met	Pro
		165					170					175			
Ser	Leu	Ala	Tyr	Cys	Thr	Phe	Leu	Leu	Ala	Val	Gly	Leu	Ser	Arg	Ile
		180					185				190				
Phe	Ile	Leu	Ala	His	Phe	Pro	His	Gln	Val	Leu	Ala	Gly	Leu	Ile	Thr
	195					200					205				
Gly	Ala	Val	Leu	Gly	Trp	Leu	Met	Thr	Xaa	Pro	Glu	Cys	Leu	Trp	Ser
	210					215					220				
Gly	Ser	Xaa	Ser	Phe	Tyr	Gly	Leu	Thr	Ala	Leu	Ala	Leu	Met	Leu	Gly
225				230				235						240	
Thr	Ser	Leu	Ile	Tyr	Trp	Thr	Leu	Phe	Thr	Leu	Gly	Leu	Asp	Leu	Ser
		245					250					255			
Trp	Ser	Ile	Ser	Leu	Ala	Phe	Lys	Trp	Cys	Glu	Arg	Pro	Glu	Trp	Ile
		260					265					270			
His	Val	Asp	Ser	Arg	Pro	Phe	Ala	Ser	Leu	Ser	Arg	Asp	Ser	Gly	Ala
	275					280					285				
Ala	Leu	Gly	Leu	Gly	Ile	Ala	Leu	His	Ser	Pro	Cys	Tyr	Ala	Gln	Val
	290					295				300					
Arg	Arg	Ala	Gln	Leu	Gly	Asn	Gly	Gln	Lys	Ile	Ala	Cys	Leu	Val	Leu

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305          310          315          320
Ala Met Gly Leu Leu Gly Pro Leu Asp Trp Leu Gly His Pro Pro Gln
          325          330          335
Ile Ser Leu Phe Tyr Ile Phe Asn Phe Leu Lys Tyr Thr Leu Trp Pro
          340          345          350
Cys Leu Val Leu Ala Leu Val Pro Trp Ala Val His Met Phe Ser Ala
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Gln Glu Ala Pro Pro Ile His Ser Ser
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<210> 4803
 <211> 564
 <212> DNA
 <213> Homo sapiens

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120
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180
gaatattaca gagatgggtg gctgtttgct tttctctttt gttgtagcat aaaactgttc
240
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300
gaagttaa at ttagatgctt tcctctcttc ttattttgtg gaggtatttc ctgttcagta
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420
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540
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564

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<210> 4804
 <211> 53
 <212> PRT
 <213> Homo sapiens

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<400> 4804
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Gln Gly Ala Ile Glu Lys Val Lys Glu Ser Asp Lys Leu Val Ala Thr
20          25          30
Ser Lys Ile Thr Leu Gln Asp Lys Gln Asn Met Val Lys Arg Val Ser
35          40          45
Ile Met Ser Tyr Ala
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<210> 4805
 <211> 1619

<212> DNA

<213> Homo sapiens

<400> 4805

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120
aaatccatgc agaaaaaact tcggagtaat tggaagattc agagcttaaa agatgaaatc
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240
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420
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480
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<210> 4806

<211> 438

<212> PRT

<213> Homo sapiens

<400> 4806

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 Lys Leu Asn Gly Val Lys Leu Trp Ile Thr Ala Gly Pro Arg Glu Lys
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 Phe Thr Ala Ala Glu Phe Glu Ile Leu Lys Lys Tyr Leu Asp Thr Gly
 65 70 75 80
 Gly Asp Val Leu Val Met Leu Gly Glu Gly Glu Ser Arg Phe Asp
 85 90 95
 Thr Asn Ile Asn Phe Leu Leu Glu Glu Tyr Gly Ile Met Val Asn Asn
 100 105 110
 Asp Ala Val Val Arg Asn Val Tyr His Lys Tyr Phe His Pro Lys Glu
 115 120 125
 Ala Leu Val Ser Ser Gly Val Leu Asn Arg Glu Ile Ser Arg Ala Ala
 130 135 140
 Gly Lys Ala Val Leu Ala Ile Ile Asp Glu Glu Ser Ser Gly Asn Asn
 145 150 155 160
 Ala Gln Ala Leu Thr Phe Val Tyr Pro Phe Gly Ala Thr Leu Ser Val
 165 170 175
 Met Lys Pro Ala Val Ala Val Leu Ser Thr Gly Ser Val Cys Phe Pro
 180 185 190
 Leu Asn Arg Pro Ile Leu Ala Phe Tyr His Ser Lys Asn Gln Gly Gly
 195 200 205
 Lys Leu Ala Val Leu Gly Ser Cys His Met Phe Ser Asp Gln Tyr Leu
 210 215 220
 Asp Lys Glu Glu Asn Ser Lys Ile Met Asp Val Val Val Phe Gln Trp
 225 230 235 240
 Leu Thr Thr Gly Asp Ile His Leu Asn Gln Ile Asp Ala Glu Asp Pro
 245 250 255
 Glu Ile Ser Asp Tyr Met Met Leu Pro Tyr Thr Ala Thr Leu Ser Lys
 260 265 270
 Arg Asn Arg Glu Cys Leu Gln Glu Ser Asp Glu Ile Pro Arg Asp Phe
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 Thr Thr Leu Phe Asp Leu Ser Ile Phe Gln Leu Asp Thr Thr Ser Phe
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 His Ser Val Ile Glu Ala His Glu Gln Leu Asn Val Lys His Glu Pro
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 Pro Ala Val Phe Pro Pro Ser Phe Arg Glu Leu Pro Pro Pro Pro Leu

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			405						410				415		
Glu	Phe	Lys	Lys	Leu	Asn	Gln	Glu	His	Asp	Ile	Asp	Thr	Ser	Glu	Thr
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<210> 4807

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 4807

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<210> 4808

<211> 313

<212> PRT

<213> Homo sapiens

<400> 4808

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		20						25					30		
Thr	Val	Tyr	Ile	Thr	Gly	Arg	His	Leu	Asp	Thr	Leu	Arg	Val	Val	Ala
		35				40						45			
Gln	Glu	Ala	Gln	Ser	Leu	Gly	Gly	Gln	Cys	Val	Pro	Val	Val	Cys	Asp
	50				55					60					
Ser	Ser	Gln	Glu	Ser	Glu	Val	Arg	Ser	Leu	Phe	Glu	Gln	Val	Asp	Arg
65				70					75					80	
Glu	Gln	Gln	Gly	Arg	Leu	Asp	Val	Leu	Val	Asn	Asn	Ala	Tyr	Ala	Gly
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Val	Gln	Thr	Ile	Leu	Asn	Thr	Arg	Asn	Lys	Ala	Phe	Trp	Glu	Thr	Pro
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Ala	Ser	Met	Trp	Asp	Asp	Ile	Asn	Asn	Val	Gly	Leu	Arg	Gly	His	Tyr
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Phe	Cys	Ser	Val	Tyr	Gly	Ala	Arg	Leu	Met	Val	Pro	Ala	Gly	Gln	Gly
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Leu	Ile	Val	Val	Ile	Ser	Ser	Pro	Gly	Ser	Leu	Gln	Tyr	Met	Phe	Asn
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			165					170						175	
Cys	Ala	His	Glu	Leu	Arg	Arg	His	Gly	Val	Ser	Cys	Val	Ser	Leu	Trp
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Pro	Gly	Ile	Val	Gln	Thr	Glu	Leu	Lys	Glu	His	Met	Ala	Lys	Glu	
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Ser	Ala	Glu	Thr	Thr	Glu	Leu	Ser	Gly	Lys	Cys	Val	Val	Ala	Leu	Ala
225				230						235				240	
Thr	Asp	Pro	Asn	Ile	Leu	Ser	Leu	Ser	Gly	Lys	Val	Leu	Pro	Ser	Cys
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Asp	Leu	Ala	Arg	Arg	Tyr	Gly	Leu	Arg	Asp	Val	Asp	Gly	Arg	Pro	Val
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Gln	Asp	Tyr	Leu	Ser	Leu	Ser	Ser	Val	Leu	Ser	His	Val	Ser	Gly	Leu
	275					280						285			
Gly	Trp	Leu	Ala	Ser	Tyr	Leu	Pro	Ser	Phe	Leu	Arg	Val	Pro	Lys	Trp
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<210> 4809
 <211> 999
 <212> DNA
 <213> Homo sapiens

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<210> 4810
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 4810
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 20 25 30
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 35 40 45
 Leu Val Pro Ala His Ala Arg Gln Arg Ser Gln Pro Ser Leu Leu Leu

50 55 60
 Ser Ser Ser Pro Arg Lys Ser Arg Ser Trp Gln Gly Ser Gly Pro Met
 65 70 75 80
 Trp Pro Gly Pro Gly Tyr Phe Pro Asp Leu Thr Ser Pro Thr Ala Gln
 85 90 95
 Pro Leu Gln Leu Leu Gly Ala Leu His Gly Cys Ser Phe Pro Pro Pro
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<210> 4811

<211> 3207

<212> DNA

<213> Homo sapiens

<400> 4811

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<211> 306

<212> PRT

<213> Homo sapiens

<400> 4812

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			20					25					30		
Lys	Val	Thr	Leu	Pro	Asn	Tyr	Asp	Asn	Val	Pro	Gly	Asn	Leu	Met	Leu
			35				40					45			
Ser	Ala	Leu	Gly	Leu	Arg	Leu	Gly	Asp	Arg	Val	Leu	Leu	Asp	Gly	Gln
	50				55						60				
Lys	Thr	Gly	Thr	Leu	Arg	Phe	Cys	Gly	Thr	Thr	Glu	Phe	Ala	Ser	Gly
65				70					75					80	
Ser	Trp	Val	Gly	Val	Glu	Leu	Asp	Glu	Pro	Glu	Gly	Lys	Asn	Asp	Gly
			85					90					95		
Ser	Val	Gly	Gly	Val	Arg	Tyr	Phe	Ile	Cys	Pro	Pro	Lys	Gln	Gly	Leu
			100					105					110		
Phe	Ala	Ser	Val	Ser	Lys	Ile	Ser	Lys	Ala	Val	Asp	Ala	Pro	Pro	Ser
		115					120					125			
Ser	Val	Thr	Ser	Thr	Pro	Gly	Pro	Pro	Arg	Met	Asp	Phe	Ser	Arg	Val
	130					135					140				
Thr	Gly	Lys	Gly	Arg	Arg	Glu	His	Lys	Gly	Lys	Lys	Lys	Thr	Pro	Ser
145				150					155					160	
Ser	Pro	Ser	Leu	Gly	Ser	Leu	Gln	Gln	Arg	Asp	Gly	Ala	Lys	Ala	Glu
			165					170					175		
Val	Gly	Asp	Gln	Val	Leu	Val	Ala	Gly	Gln	Lys	Gln	Gly	Ile	Val	Arg
		180					185						190		
Phe	Tyr	Gly	Lys	Thr	Asp	Phe	Ala	Pro	Gly	Tyr	Trp	Tyr	Gly	Ile	Glu
	195					200					205				
Leu	Asp	Gln	Pro	Thr	Gly	Lys	His	Asp	Gly	Ser	Val	Phe	Gly	Val	Arg
	210					215					220				
Tyr	Phe	Thr	Cys	Pro	Pro	Arg	His	Gly	Val	Phe	Ala	Pro	Ala	Ser	Arg
225				230					235					240	
Ile	Gln	Arg	Ile	Gly	Gly	Ser	Thr	Asp	Ser	Pro	Gly	Asp	Ser	Val	Gly

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                245                250                255
Ala Lys Lys Val His Gln Val Thr Met Thr Gln Pro Lys Arg Thr Phe
                260                265                270
Thr Thr Val Arg Thr Pro Lys Asp Ile Ala Ser Glu Asn Ser Ile Ser
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Arg Leu Leu Phe Cys Cys Trp Phe Pro Trp Met Leu Arg Ala Glu Met
                290                295                300
Gln Ser
305

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<210> 4813

<211> 400

<212> DNA

<213> Homo sapiens

<400> 4813

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120
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180
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240
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300
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400

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<210> 4814

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4814

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 20          25          30
Ser Pro Trp Lys Phe Leu Arg Glu Cys Ser Asn Leu Cys Leu Thr Ile
 35          40          45
Met Met Val Val Ser Trp Thr Ala Gly Gly Lys Ala Lys Pro Cys Gly
 50          55          60
Arg Gly Gly Gly Leu Gln Arg Lys Ala Ala Ala Thr Thr Ala Ser Phe
 65          70          75          80
Pro Thr His Ser His Trp Gln Thr Gly Gly Gln Val Gln Ser Pro Lys
 85          90          95
Glu Thr Ala Ala Cys Ala Gly His Pro Pro Gly Thr Ala Phe Ser Leu
100          105          110
Ile Leu Pro Val Pro Pro Thr Cys Trp Val Ser Val Ala
115          120          125

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<210> 4815
 <211> 528
 <212> DNA
 <213> Homo sapiens

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<210> 4816
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 4816
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 Arg Thr Ala Pro Lys Lys Gln Leu Pro Ser Ile Pro Lys Asn Ala Leu
 35 40 45
 Pro Ile Thr Lys Pro Thr Ser Pro Ala Pro Ala Ala Gln Ser Thr Asn
 50 55 60
 Gly Thr His Ala Ser Tyr Gly Pro Phe Tyr Leu Glu Tyr Ser Leu Leu
 65 70 75 80
 Ala Glu Phe Thr Leu Val Val Lys Gln Lys Leu Pro Gly Val Tyr Val
 85 90 95
 Gln Pro Ser Tyr Arg Ser Ala Leu Met
 100 105

<210> 4817
 <211> 1106
 <212> DNA
 <213> Homo sapiens

<400> 4817
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<210> 4818

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4818

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 Ser Gln Ala Gly Leu Asn Gln Lys Leu Asn Phe Ile Val Thr Gly Leu
 35 40 45
 Gln Asp Ile Asp Lys Cys Arg Gln Gln Leu His Asp Ile Thr Val Pro
 50 55 60
 Leu Glu Val Phe Glu Tyr Ile Asp Gln Gly Arg Asn Pro Gln Leu Tyr
 65 70 75 80
 Thr Lys Glu Cys Leu Glu Arg Ala Leu Ala Lys Asn Glu Gln Val Lys

	85		90		95										
Gly	Lys	Ile	Asp	Thr	Met	Lys	Lys	Phe	Lys	Ser	Leu	Leu	Ile	Gln	Glu
	100							105					110		
Leu	Ser	Lys	Val	Phe	Pro	Glu	Asp	Met	Ala	Lys	Tyr	Arg	Ser	Ile	Arg
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<210> 4819

<211> 1655

<212> DNA

<213> Homo sapiens

<400> 4819

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<210> 4820

<211> 551

<212> PRT

<213> Homo sapiens

<400> 4820

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			20					25					30		
Tyr	Leu	His	Leu	Pro	Asp	Leu	Gly	Arg	Cys	Ser	Leu	Val	Cys	Arg	Ala
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Trp	Tyr	Glu	Leu	Ile	Leu	Ser	Leu	Asp	Ser	Thr	Arg	Trp	Arg	Gln	Leu
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Cys	Leu	Gly	Cys	Thr	Glu	Cys	Arg	His	Pro	Asn	Trp	Pro	Asn	Gln	Pro
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Asp	Val	Glu	Pro	Glu	Ser	Trp	Arg	Glu	Ala	Phe	Lys	Gln	His	Tyr	Leu
			85						90					95	
Ala	Ser	Lys	Thr	Trp	Thr	Lys	Asn	Ala	Leu	Asp	Leu	Glu	Ser	Ser	Ile
			100					105						110	
Cys	Phe	Ser	Leu	Phe	Arg	Arg	Arg	Glu	Arg	Arg	Thr	Leu	Ser	Val	
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Gly	Pro	Gly	Arg	Glu	Phe	Asp	Ser	Leu	Gly	Ser	Ala	Leu	Ala	Met	Ala
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Ser	Leu	Tyr	Asp	Arg	Ile	Val	Leu	Phe	Pro	Gly	Val	Tyr	Glu	Glu	Gln
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Gly	Glu	Ile	Ile	Leu	Lys	Val	Pro	Val	Glu	Ile	Val	Gly	Gln	Gly	Lys
			165						170					175	
Leu	Gly	Glu	Val	Ala	Leu	Leu	Ala	Ser	Ile	Asp	Gln	His	Cys	Ser	Thr
			180						185				190		
Thr	Arg	Leu	Cys	Asn	Leu	Val	Phe	Thr	Pro	Ala	Trp	Phe	Ser	Pro	Ile
		195					200					205			
Met	Tyr	Lys	Thr	Thr	Ser	Gly	His	Val	Gln	Phe	Asp	Asn	Cys	Asn	Phe
	210					215					220				
Glu	Asn	Gly	His	Ile	Gln	Val	His	Gly	Pro	Gly	Thr	Cys	Gln	Val	Lys
225				230						235				240	
Phe	Cys	Thr	Phe	Lys	Asn	Thr	His	Ile	Phe	Leu	His	Asn	Val	Pro	Leu

245 250 255
 Cys Val Leu Glu Asn Cys Glu Phe Val Gly Ser Glu Asn Asn Ser Val
 260 265 270
 Thr Val Glu Gly His Pro Ser Ala Asp Lys Asn Trp Ala Tyr Lys Tyr
 275 280 285
 Leu Leu Gly Leu Ile Lys Ser Ser Pro Thr Phe Leu Pro Thr Glu Asp
 290 295 300
 Ser Asp Phe Leu Met Ser Leu Asp Leu Glu Ser Arg Asp Gln Ala Trp
 305 310 315 320
 Ser Pro Lys Thr Cys Asp Ile Val Ile Glu Gly Ser Gln Ser Pro Thr
 325 330 335
 Ser Pro Ala Ser Ser Ser Pro Lys Pro Gly Ser Lys Ala Gly Ser Gln
 340 345 350
 Glu Ala Glu Val Gly Ser Asp Gly Glu Arg Val Ala Gln Thr Pro Asp
 355 360 365
 Ser Ser Asp Gly Gly Leu Ser Pro Ser Gly Glu Asp Glu Asp Glu Asp
 370 375 380
 Gln Leu Met Tyr Arg Leu Ser Tyr Gln Val Gln Gly Pro Arg Pro Val
 385 390 395 400
 Leu Gly Gly Ser Phe Leu Gly Pro Pro Leu Pro Gly Ala Ser Ile Gln
 405 410 415
 Leu Pro Ser Cys Leu Val Leu Asn Ser Leu Gln Gln Glu Leu Gln Lys
 420 425 430
 Asp Lys Glu Ala Met Ala Leu Ala Asn Ser Val Gln Gly Cys Leu Ile
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 Arg Lys Cys Leu Phe Arg Asp Gly Lys Gly Gly Val Phe Val Cys Ser
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 His Gly Arg Ala Lys Met Glu Gly Asn Ile Phe Arg Asn Leu Thr Tyr
 465 470 475 480
 Ala Val Arg Cys Ile His Asn Ser Lys Ile Ile Met Leu Arg Asn Asp
 485 490 495
 Ile Tyr Arg Cys Arg Ala Ser Gly Ile Phe Leu Arg Leu Glu Gly Gly
 500 505 510
 Gly Leu Ile Ala Gly Asn Asn Ile Tyr His Asn Ala Glu Ala Gly Val
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<210> 4821

<211> 585

<212> DNA

<213> Homo sapiens

<400> 4821

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 240

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<210> 4822
 <211> 195
 <212> PRT
 <213> Homo sapiens

<400> 4822
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 35 40 45
 Glu Ala Arg Tyr Tyr Leu Val Gln Gly Leu Ile Glu Asp Cys Gln Leu
 50 55 60
 Ala Leu Gln Gln Lys Arg Glu Thr Leu Ser Pro Leu Cys Leu Ile Pro
 65 70 75 80
 Met Val Thr Ser Pro Arg Glu Glu Gln Gln Leu Leu Ala Ser Thr Ser
 85 90 95
 Lys Pro Val Val Lys Leu Leu His Asn Arg Ser Asn Asn Lys Tyr Ser
 100 105 110
 Tyr Thr Ser Thr Ser Asp Asp Asn Leu Leu Lys Asn Ile Glu Leu Phe
 115 120 125
 Asp Lys Leu Ala Leu Arg Phe His Gly Arg Leu Leu Phe Leu Lys Asp
 130 135 140
 Val Leu Gly Asp Glu Ile Cys Cys Trp Ser Phe Tyr Gly Gln Gly Arg
 145 150 155 160
 Lys Ile Ala Glu Val Cys Cys Thr Ser Ile Val Tyr Ala Thr Glu Lys
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 Lys Gln Thr Lys Val Arg Gly Ala Pro Glu Pro Met Leu Gly Ala Gly
 180 185 190
 Gly Gly His
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<210> 4823
 <211> 1984
 <212> DNA
 <213> Homo sapiens

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<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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Asp	Lys	Asn	Ser	Gly	Thr	Gly	Glu	Lys	Lys	Gly	Pro	Asn	Arg	Asn	Arg
	35					40					45				
Val	Phe	Ile	Ser	Asn	Ile	Pro	Tyr	Asp	Met	Lys	Trp	Gln	Ala	Ile	Lys
	50				55				60						
Asp	Leu	Met	Arg	Glu	Lys	Val	Gly	Glu	Val	Thr	Tyr	Val	Glu	Leu	Phe
65				70				75					80		
Lys	Asp	Ala	Glu	Gly	Lys	Ser	Arg	Gly	Cys	Gly	Val	Val	Glu	Phe	Lys
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Asp	Glu	Glu	Phe	Val	Lys	Lys	Ala	Leu	Glu	Thr	Met	Asn	Lys	Tyr	Asp
	100						105						110		
Leu	Ser	Gly	Arg	Pro	Leu	Asn	Ile	Lys	Glu	Asp	Pro	Asp	Gly	Glu	Asn
	115					120						125			
Ala	Arg	Arg	Ala	Leu	Gln	Arg	Thr	Gly	Gly	Ser	Phe	Pro	Gly	Gly	His
	130				135						140				
Val	Pro	Asp	Met	Gly	Ser	Gly	Leu	Met	Asn	Leu	Pro	Pro	Ser	Ile	Leu
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Lys	Ser	Val	Pro	His	Glu	Glu	Tyr	Arg	Ser	Pro	Asp	Gly	Lys	Thr	Pro
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Gln	Leu	Pro	Arg	Gly	Leu	Gly	Gly	Ile	Gly	Met	Gly	Leu	Gly	Pro	Gly

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 Asn Ser Met Gly Gly Phe Gly Gly Val Gly Arg Met Gly Glu Leu Tyr
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 Arg Gly Ala Met Thr Ser Ser Met Glu Arg Asp Phe Gly Arg Gly Asp
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 Ile Gly Ile Asn Arg Ala Phe Gly Asp Ser Phe Gly Arg Leu Gly Ser
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 Ala Met Ile Gly Gly Ile Thr Gly Arg Ile Gly Ser Ser Asn Met Gly
 385 390 395 400
 Pro Val Gly Ser Gly Ile Ser Gly Gly Met Gly Ser Met Asn Ser Val
 405 410 415
 Thr Gly Gly Met Gly Met Gly Leu Asp Arg Met Ser Ser Ser Phe Asp
 420 425 430
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 435 440 445
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 Ile Gly Ser Lys Gly Asn Gln Ile Phe Val Arg Asn Leu Pro Phe Asp
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 485 490 495
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 500 505 510
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<210> 4825

<211> 2380

<212> DNA

<213> Homo sapiens

<400> 4825

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1980

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<212> PRT

<213> Homo sapiens

<400> 4828

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<211> 1605

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<210> 4830
 <211> 512
 <212> PRT
 <213> Homo sapiens

<400> 4830

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Met Ala Lys Met Glu Val Lys Thr Ser Leu Leu Asp Asn Met Ile Gly
 1           5           10           15
Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
      20           25           30
Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
      35           40           45
Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
      50           55           60
Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
65           70           75           80
Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
      85           90           95
Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
      100          105          110
Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
      115          120          125
Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
      130          135          140
Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
145          150          155          160
Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
      165          170          175
Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
      180          185          190
Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
      195          200          205
Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
      210          215          220
Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
225          230          235          240
Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
      245          250          255
Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
      260          265          270
Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
      275          280          285
Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
      290          295          300
Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
305          310          315          320
Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
      325          330          335
Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
      340          345          350
Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
      355          360          365
Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485      490      495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
      500      505      510

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<210> 4831
 <211> 578
 <212> DNA
 <213> Homo sapiens

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<400> 4831
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120
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180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
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300
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360
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420
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578

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<210> 4832
 <211> 105
 <212> PRT
 <213> Homo sapiens

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<400> 4832
Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1      5      10      15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

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      20      25      30
Pro His Phe Asn Lys His Leu Leu Gly Ala Glu His Gly Asp Glu Pro
      35      40      45
Arg His Gly Gly Leu Thr Leu Arg Leu Gly Leu His Gln Gln Ser Val
      50      55      60
Leu Gly Gly Gln Asp Gln Leu Arg Val Arg Val Thr Glu Leu Glu Asp
65      70      75      80
Glu Val Arg Asn Leu Arg Lys Ile Asn Arg Asp Leu Phe Asp Phe Ser
      85      90      95
Thr Arg Phe Ile Thr Arg Pro Ala Lys
      100      105

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<210> 4833

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4833

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180
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240
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420
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480
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720
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780
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<210> 4834

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4834

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
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 20 25 30
 Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
 35 40 45
 Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
 50 55 60
 Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65 70 75 80
 Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
 85 90 95
 Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
 100 105 110
 Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
 115 120 125
 Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
 130 135 140
 Leu Ser Thr
 145

<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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 240
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 660
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 720
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 780

cgtttccccg gtgcccgggt gccatggctc agtgtgcaga cagccgcacc ctcaccactg
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 900
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 960
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 1020
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<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

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His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25				30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35					40					45			
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50					55				60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65					70				75				80		
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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120					
actgtaaatt	atgatagtgt	caattctgac	aactctaagc	caaagatatt	taaaagtcaa
180					
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240					
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300					
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360					
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420					

acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac
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 720
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 780
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 906

<210> 4838

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4838

Xaa	Gly	Glu	Glu	Glu	Glu	Val	Val	Ala	Ala	Phe	Gly	Lys	Lys	Glu	Ser
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Gln	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Ser	Asp	Glu	Gly	Glu	Arg	Thr	Ile
			20					25					30		
Glu	Thr	Ala	Lys	Gly	Ile	Asn	Gly	Thr	Val	Asn	Tyr	Asp	Ser	Val	Asn
		35					40					45			
Ser	Asp	Asn	Ser	Lys	Pro	Lys	Ile	Phe	Lys	Ser	Gln	Ile	Glu	Asn	Ile
	50						55				60				
Asn	Leu	Thr	Asn	Gly	Ser	Asn	Gly	Arg	Asn	Thr	Glu	Ser	Pro	Ala	Ala
65					70					75				80	
Ile	His	Pro	Cys	Gly	Asn	Pro	Thr	Val	Ile	Glu	Asp	Ala	Leu	Asp	Lys
			85						90					95	
Ile	Lys	Ser	Asn	Asp	Pro	Asp	Thr	Thr	Glu	Val	Asn	Leu	Asn	Asn	Ile
			100					105					110		
Glu	Asn	Ile	Thr	Thr	Gln	Thr	Leu	Thr	Arg	Phe	Ala	Glu	Ala	Leu	Lys
			115				120					125			
Asp	Asn	Thr	Val	Val	Lys	Thr	Phe	Ser	Leu	Ala	Asn	Thr	His	Ala	Asp
	130						135					140			
Asp	Ser	Ala	Ala	Met	Ala	Ile	Ala	Glu	Met	Leu	Lys	Val	Asn	Glu	His
145				150					155					160	
Ile	Thr	Asn	Val	Asn	Val	Glu	Ser	Asn	Phe	Ile	Thr	Gly	Lys	Gly	Ile
			165						170					175	
Leu	Ala	Ile	Met	Arg	Ala	Leu	Gln	His	Asn	Thr	Val	Leu	Thr	Glu	Leu
		180						185					190		
Arg	Phe	His	Asn	Gln	Arg	His	Ile	Met	Gly	Ser	Gln	Val	Glu	Met	Glu
		195					200						205		
Ile	Val	Lys	Leu	Leu	Lys	Glu	Asn	Thr	Thr	Leu	Leu	Arg	Leu	Gly	Tyr
	210					215					220				
His	Phe	Glu	Leu	Pro	Gly	Pro	Arg	Met	Ser	Met	Thr	Ser	Ile	Leu	Thr

225		230		235		240									
Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
				245					250					255	
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
			260					265					270		
Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
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Trp	Ser	Ser	Pro	Lys	Leu	Pro	Tyr	Gly	Glu	Thr	Thr	Thr	Arg		
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<210> 4839

<211> 1313

<212> DNA

<213> Homo sapiens

<400> 4839

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120
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180
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420
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480
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1020
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1080
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1140

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 1313

<210> 4840
 <211> 66
 <212> PRT
 <213> Homo sapiens

<400> 4840
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 Asp Pro Gly Thr Ser Pro Ser Ser Ser Pro Gly Pro Pro Gly Pro Asp
 35 40 45
 Gly His Ser Arg Tyr Ser Ala His Ser Val Leu Gly His Pro Ala Pro
 50 55 60
 Ala Val
 65

<210> 4841
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 4841
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<210> 4842
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 <212> PRT

<213> Homo sapiens

<400> 4842

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 20           25           30
Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp Leu Phe Cys
 35           40           45
His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu Glu Gln Thr
 50           55           60
Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala Cys Ile Gly
 65           70           75           80
His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
 85           90           95
Leu Glu Gln Leu Gln Gly Leu Val Glu Glu Arg Ser Arg Pro Ala Arg
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Lys Gly Ser Ala Ala Ser
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<210> 4843

<211> 6403

<212> DNA

<213> Homo sapiens

<400> 4843

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840

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<211> 626

<212> PRT

<213> Homo sapiens

<400> 4846

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		35				40					45				
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Lys	Tyr	Glu	Asp	Val	Glu	His	Lys	Val	Thr	Thr	Val	Phe	Gly	Gln	Pro
65					70				75					80	
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 <212> DNA
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 <211> 242
 <212> PRT
 <213> Homo sapiens

<400> 4848
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 35 40 45
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 50 55 60
 Met Lys Lys Tyr Ala Glu Thr Phe Leu Glu Pro Trp Phe Lys Ala Pro
 65 70 75 80
 Asn Lys Gly Thr Phe Gln Ile Val Tyr Lys Ser Arg Asn Asn Ser His
 85 90 95
 Val Asn Arg Glu Glu Val Ile Arg Glu Leu Ala Gly Ile Val Cys Thr
 100 105 110
 Leu Asn Ser Glu Asn Lys Val Asp Leu Thr Asn Pro Gln Tyr Thr Val
 115 120 125
 Val Val Glu Ile Ile Lys Ala Val Cys Cys Leu Ser Val Val Lys Asp
 130 135 140
 Tyr Met Leu Phe Arg Lys Tyr Asn Leu Gln Glu Val Val Lys Ser Pro
 145 150 155 160
 Lys Asp Pro Ser Gln Leu Asn Ser Lys Gln Gly Asn Gly Lys Glu Ala
 165 170 175
 Lys Leu Glu Ser Ala Asp Lys Ser Asp Gln Asn Asn Thr Ala Glu Gly
 180 185 190
 Lys Asn Asn Gln Gln Val Pro Glu Asn Thr Glu Glu Leu Gly Gln Thr
 195 200 205
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<210> 4849
 <211> 321
 <212> DNA
 <213> Homo sapiens

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<210> 4850

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4850

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Ile	Arg	Glu	Arg	Leu	Gly	Ser	Gly	Ala	Phe	Ser	Glu	Val	Val	Leu	Ala
			20					25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
			35					40				45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
	50					55				60					
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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<210> 4852
 <211> 207
 <212> PRT
 <213> Homo sapiens

<400> 4852
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 35 40 45
 Ala Leu Pro Asp Gln Tyr Gln Glu Asp Ala Ser Asp Met Lys Asp Met
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 Ser Lys Tyr Lys Pro His Ile Leu Leu Ser Gln Glu Asn Thr Gln Ile
 65 70 75 80
 Arg Asp Leu Gln Gln Glu Asn Arg Glu Leu Trp Ile Ser Leu Glu Glu
 85 90 95
 His Gln Asp Ala Leu Glu Leu Ile Met Ser Lys Tyr Arg Lys Gln Met
 100 105 110
 Leu Gln Leu Met Val Ala Lys Lys Ala Val Asp Ala Glu Pro Val Leu
 115 120 125
 Lys Ala His Gln Ser His Ser Ala Glu Ile Glu Ser Gln Ile Asp Arg
 130 135 140
 Ile Cys Glu Met Gly Glu Val Met Arg Lys Ala Val Gln Val Asp Asp
 145 150 155 160
 Asp Gln Phe Cys Lys Ile Gln Glu Lys Leu Ala Gln Leu Glu Leu Glu
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<210> 4853
 <211> 1467
 <212> DNA
 <213> Homo sapiens

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<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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35           40           45
Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala
50           55           60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala
65           70           75           80
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu
85           90           95
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala
100          105          110
Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa
115          120          125
Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser
130          135          140
Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser
145          150          155          160
Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val
165          170          175
Ala Leu Thr Val Lys Leu Ala Gln Asp Asp Leu His Ile Met Asp Ser
180          185          190
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His
195          200          205
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu
210          215          220
Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe
225          230          235          240
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His
245          250          255
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys
260          265          270
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu
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Ala Ala Thr Pro Tyr His Cys
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<210> 4855

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
			20					25					30		
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
			35				40					45			
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			85					90						95	
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
			100					105					110		
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Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
			180					185					190		
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
			195				200					205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 4858

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 35 40 45
 Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
 50 55 60
 Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65 70 75 80
 Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85 90 95
 Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
 100 105 110
 Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
 115 120 125
 Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
 130 135 140
 Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
 145 150 155 160
 Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
 165 170 175
 Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
 180 185 190
 Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
 195 200 205
 Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
 210 215 220
 Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
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<210> 4859
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 4859

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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
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Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
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Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65					70				75					80	
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
		85						90					95		
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
		100						105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
		115					120						125		
His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
	130					135					140				
Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
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Pro	Cys	Ala	Val	Cys	Thr	Leu	His	Ser	Leu	Pro	Cys	Leu			
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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1622

<210> 4862
 <211> 260
 <212> PRT
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<400> 4862
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 35 40 45
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
 50 55 60
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
 85 90 95
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
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 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
 180 185 190
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
 245 250 255
 Thr Val Lys Gln
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<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 4863
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 180

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<210> 4864
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4864
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 35 40 45
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu
 50 55 60
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly
 65 70 75 80
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly
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 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly
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 Leu Glu His Asp Gly Ala
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<210> 4865
 <211> 444
 <212> DNA
 <213> Homo sapiens

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<210> 4866